# Utah Climate and Water Report

June 1, 2017

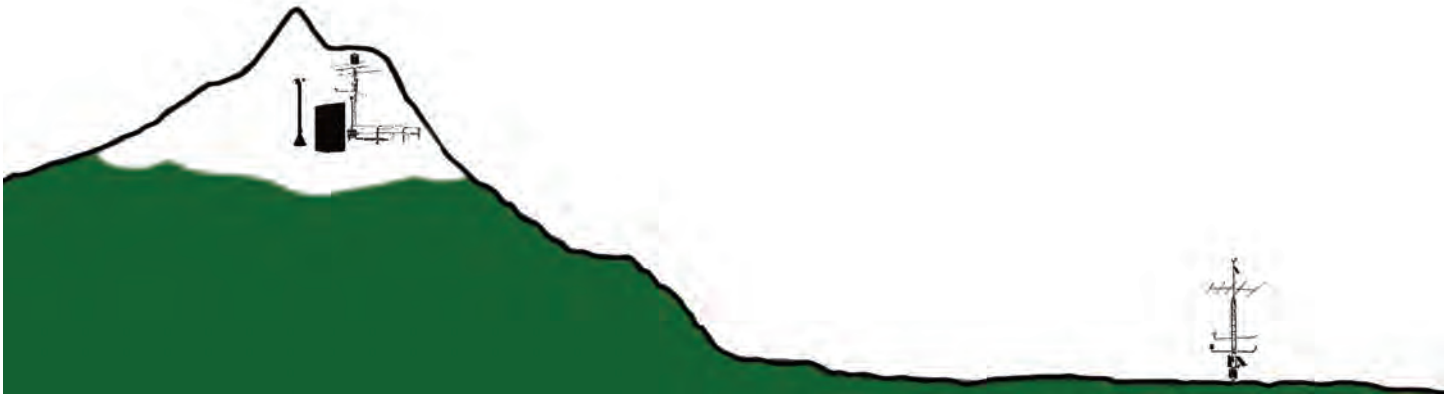
**Weber Watershed near Holladay Park, May 2017**

**Photo by Randy Julander**

# Report Contents

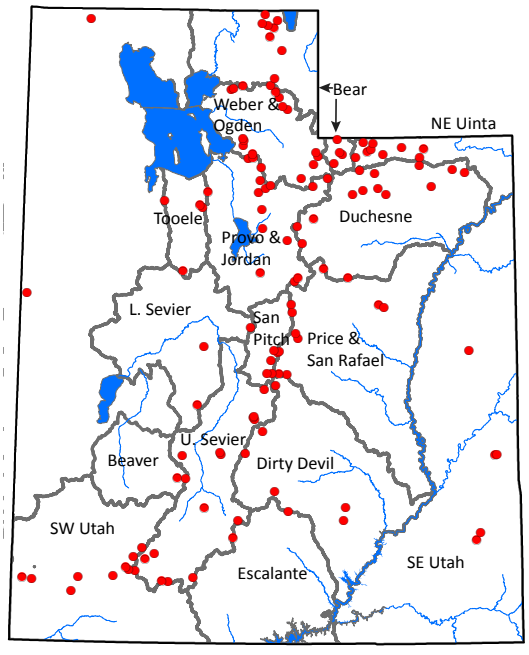
# Utah Climate and Water Report

The purpose of the Climate and Water Report is to provide a snapshot of current and immediate past climatic conditions and other information useful to agricultural and water user interests in Utah. The report utilizes data from several sources that represent specific parameters (streamflow data from the United States Geological Survey, reservoir data from the Bureau of Reclamation, and other sources), geography including high elevation United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Snowpack Telemetry (SNOTEL) data, and agriculturally important data from the USDA-NRCS Soil Climate Analysis Network (SCAN). Data on precipitation, soil moisture, soil temperature, reservoir storage, and streamflow are analyzed and presented. These data analyses can be used to increase irrigation efficiency and agricultural production. As with all data and analyses, there are limitations due to data quality, quantity, and spatial application.



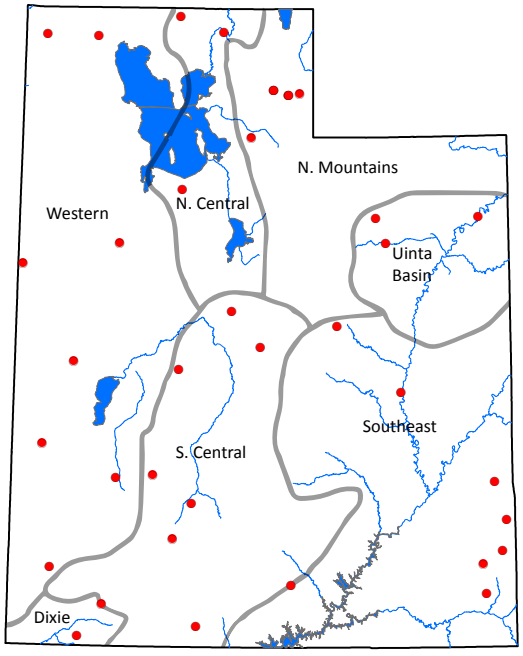
## SNOTEL

- Mountainous areas
- High elevation (>6,000 ft)
- Water supply forecasting
- Installed where snow pack represents the water supply




## SCAN

- Agricultural and range lands
- Mid elevation (3 – 7,000 ft).
- Irrigation efficiency and rangeland productivity
- Installed on spatially representative soils



# Utah General Summary
## June 1, 2017

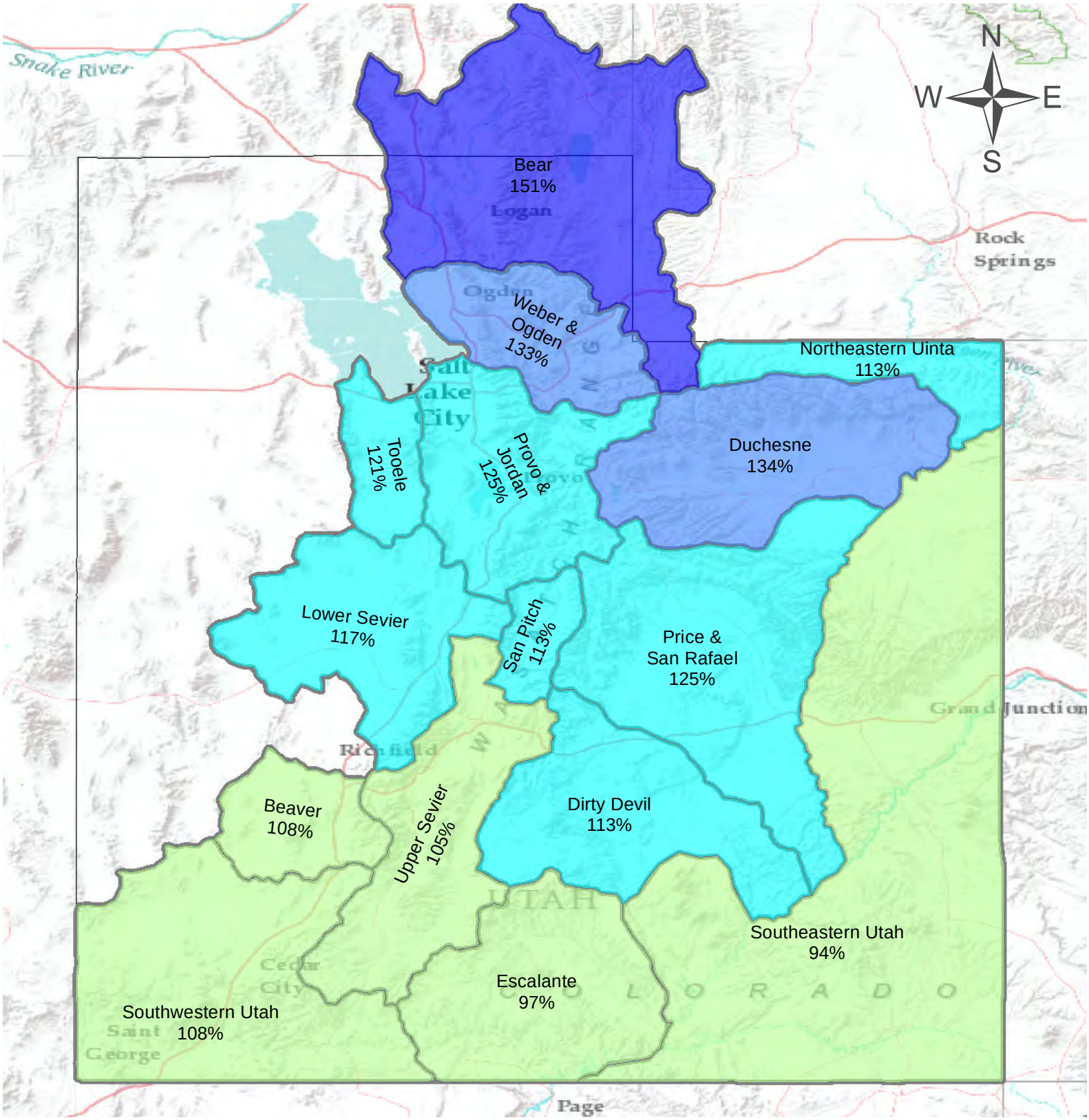
*This report has been reorganized to better reflect two distinct geographic areas being monitored – the low elevation valley sites (**S**oil **C**limate **A**nalysis **N**etwork) that are critical for agricultural production and operations, and the high elevation mountainous areas where water supply is generated (**SNO**w**TEL**emetry). Most of the graphs have been updated to utilize daily data versus the old monthly bar charts so that the timing and distribution of precipitation and other events can be seen. The timing distribution of precipitation can be as important as the overall amount in an agricultural context. These graphs are hyperlinked so that the user can simply click on the graph and be taken to the most recent version on the Snow Survey web page. Questions, comments and suggestions are welcome and should be directed to Randy.Julander@ut.usda.gov.*

### Current Valley Conditions (SCAN)

May brought 0.5 inches of precipitation to Utah's valley locations, bringing the total to 9.0 inches for this water year. Some precipitation earlier in the month—particularly in southern Utah—has transitioned to fairly dry conditions statewide. Soil moisture is at 41% of normal, which is slightly lower than this time last year. Whereas soil moisture levels are still above normal in the northeast portion of the state, soils in the North Central, Uinta Basin, and Western and Dixie areas have dried down significantly from moisture levels observed a month ago and are now well below normal (with a couple local exceptions). Soils in southern Utah are at near-normal moisture levels for this time of year. At the majority of Utah SCAN sites, near-surface portions of the soil are now below permanent wilting point, but ample water remains to support plant growth below around 4 to 8 inches, and several locations still have moisture levels above field capacity below around 20 inches depth. The exception to this general pattern is found in Morgan and Rich counties and a few other locations where soils are ideal for plant growth throughout the profile.

### Current Mountain Conditions (SNOTEL)

Snowpacks in southern Utah are pretty much melted out for the season and most streamflow has peaked and is currently in recession. Most reservoirs filled with some notable exceptions such as Piute and Sevier Bridge (Yuba Dam), but on the whole, a good water year. In northern Utah, the low elevation watersheds (Emigration, Parleys, Blacksmith Fork) have peaked and are in recession but the higher elevation watersheds (Bear, Logan, Weber, Provo and Uinta Basin rivers) are still flowing very high and will likely peak in the next week or so. Again, most reservoirs in the north have or will fill with the exception of the very largest ones such as Utah Lake and Strawberry Reservoir. Runoff continues to be above average in most areas across the state with some locations in northern Utah running in the 90$^{th}$ percentile – an exceptionally good year. Precipitation in May ranged between 40% and 50% in northern Utah and slightly higher in the south, between 50% and 90% of average. These drier conditions likely alleviated some of the flood potential in northern Utah. Seasonal precipitation (Oct-May) ranges from near average in the south (95%-110%) to well above average in the north (125%-150%). Water Availability Indexes are generally near to well above average with the exception of the Lower Sevier River where storage in Sevier Bridge Reservoir is low.




# Statewide Precipitation

As of June 1, 2017:

127% of Normal Precipitation

55% of Normal Precipitation Last Month

0 10 20 40 60 80 100
Miles

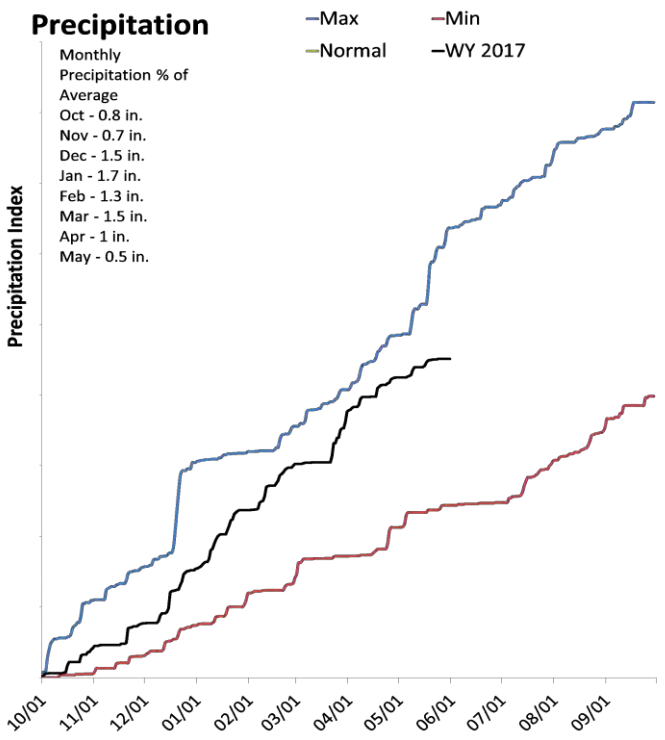
**% of Normal**

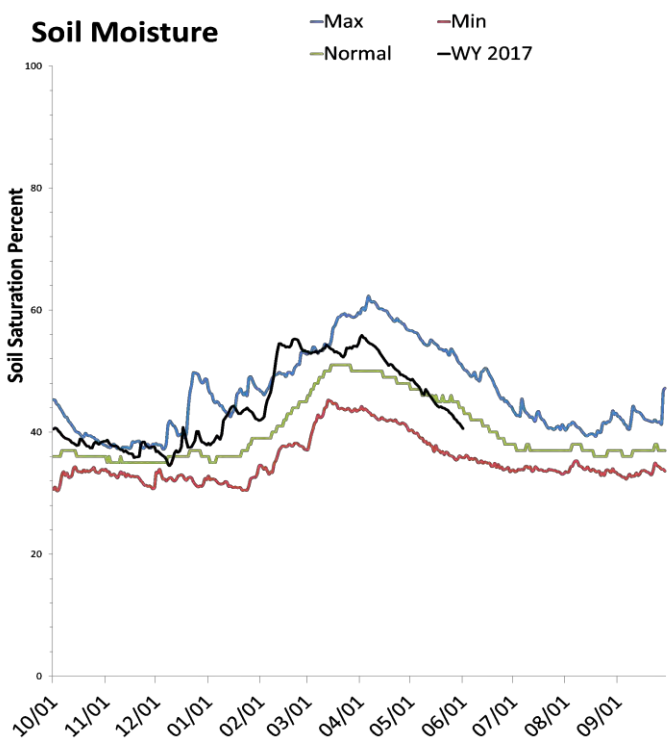
- < 50%
- 50 - 69%
- 70 - 89%
- 90 - 109%
- 110 - 129%
- 130 - 149%
- > 150%

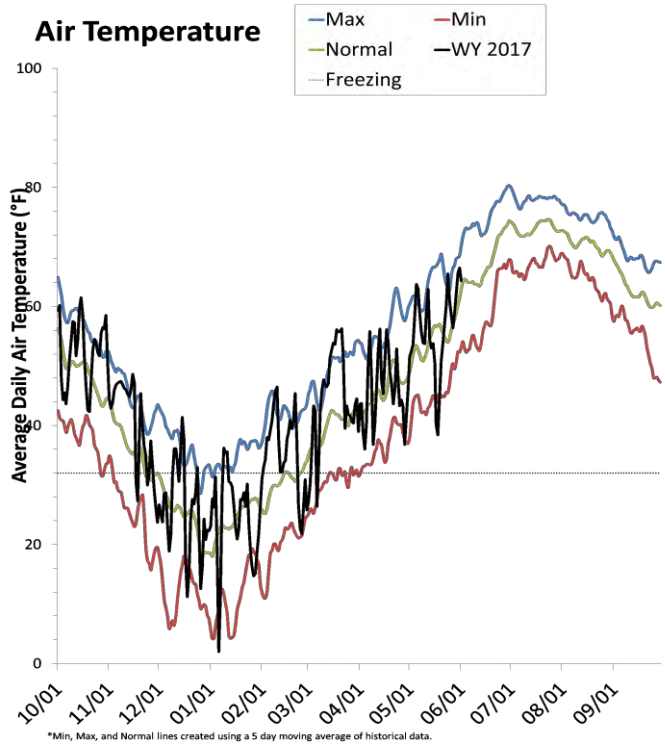
# Statewide SCAN

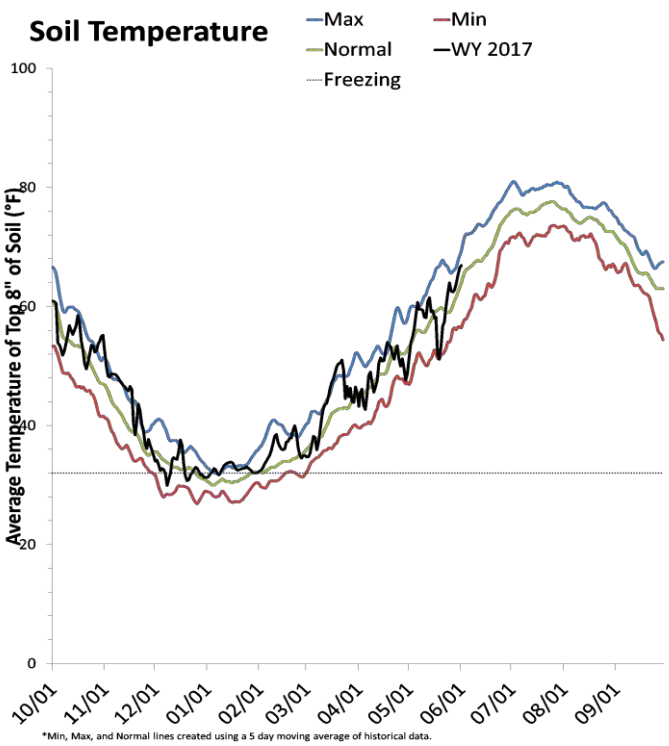
June 1, 2017

The average precipitation at SCAN sites within Utah was 0.5 inches in May, which brings the seasonal accumulation (Oct-May) to 9 inches. Soil moisture is at 41% compared to 43% last year.



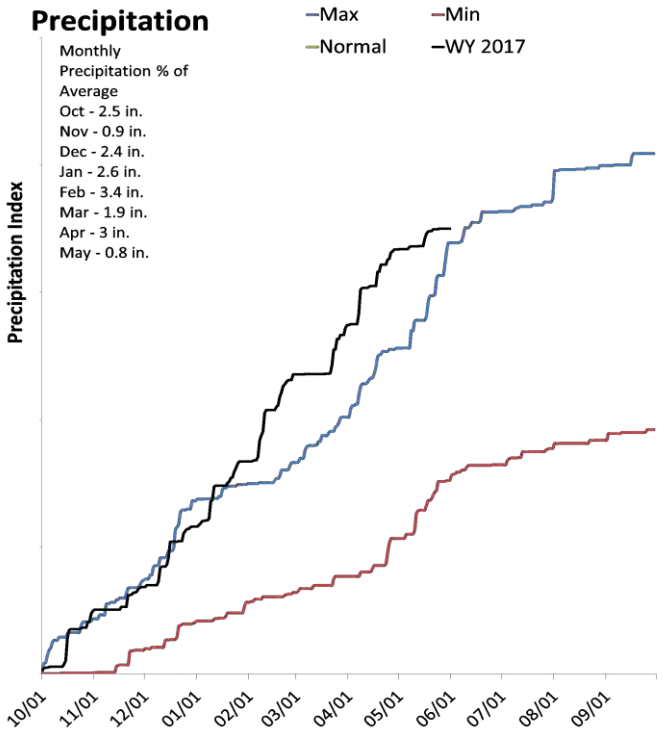



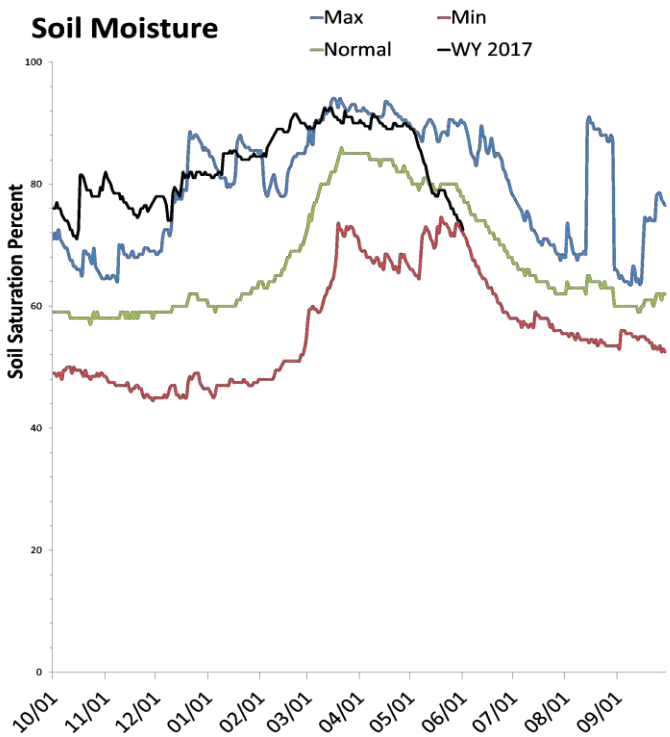



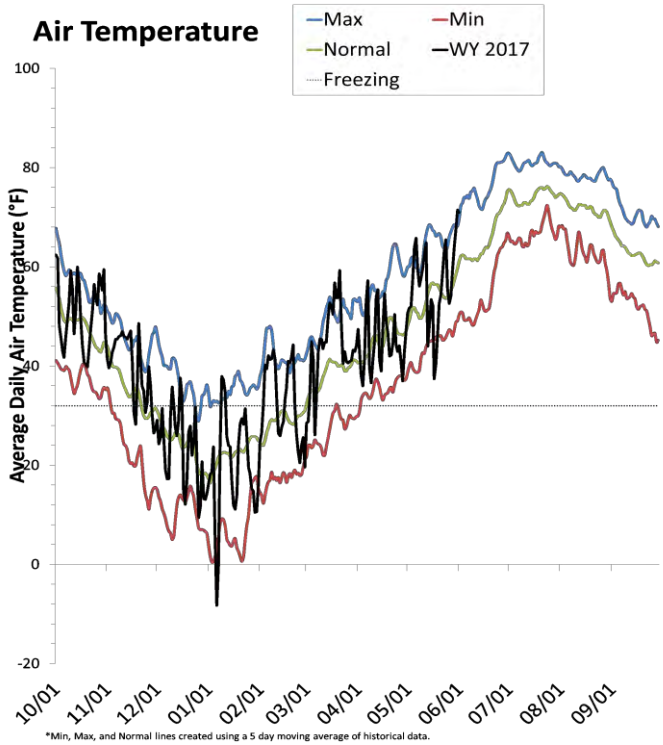
# North Central

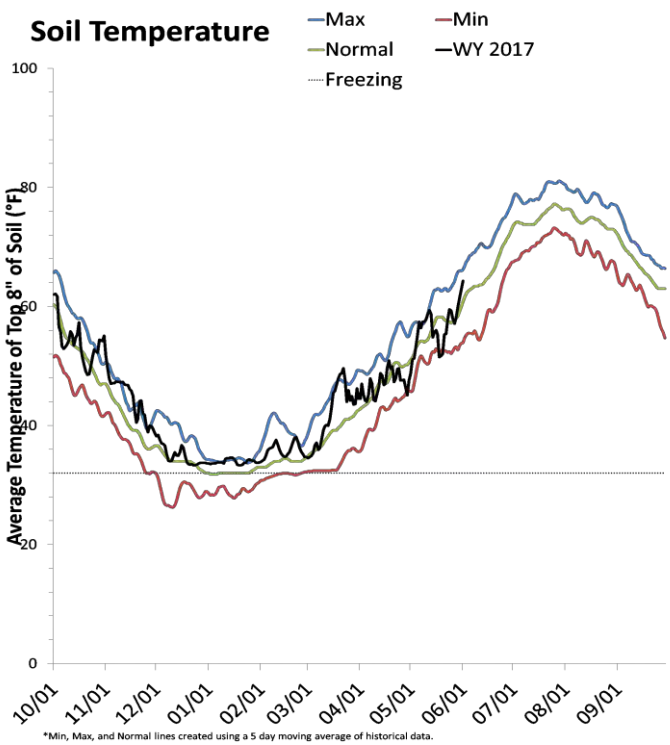
June 1, 2017

The average precipitation in May at SCAN sites within the basin was 0.8 inches, which brings the seasonal accumulation (Oct-May) to 17.5 inches. Soil moisture is at 73% compared to 73% last year.



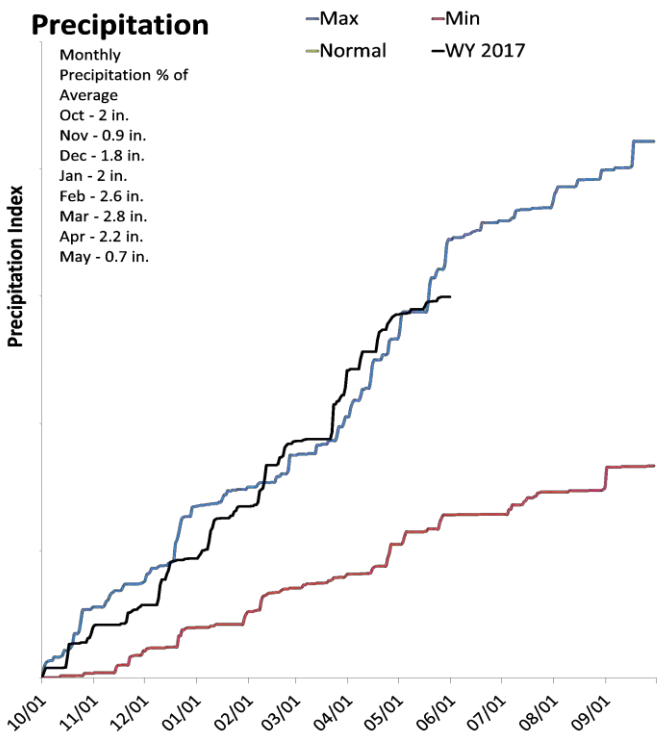



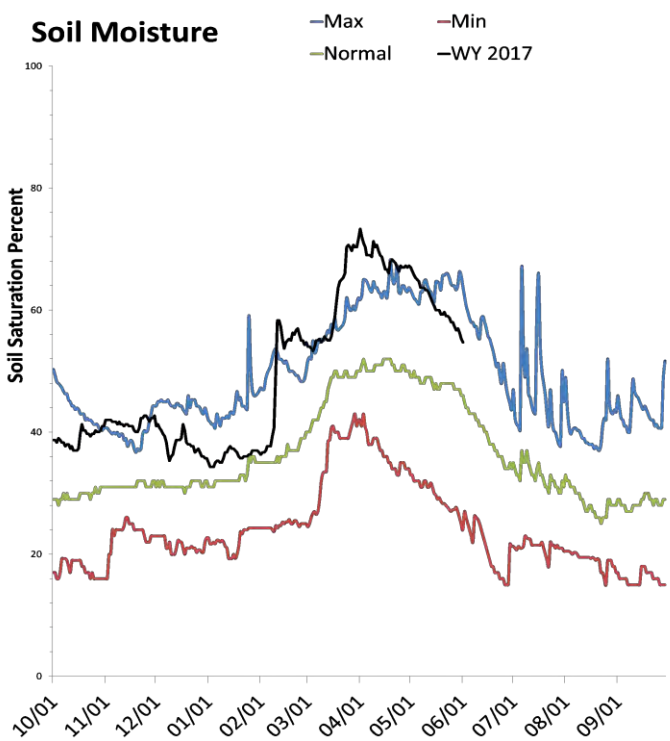



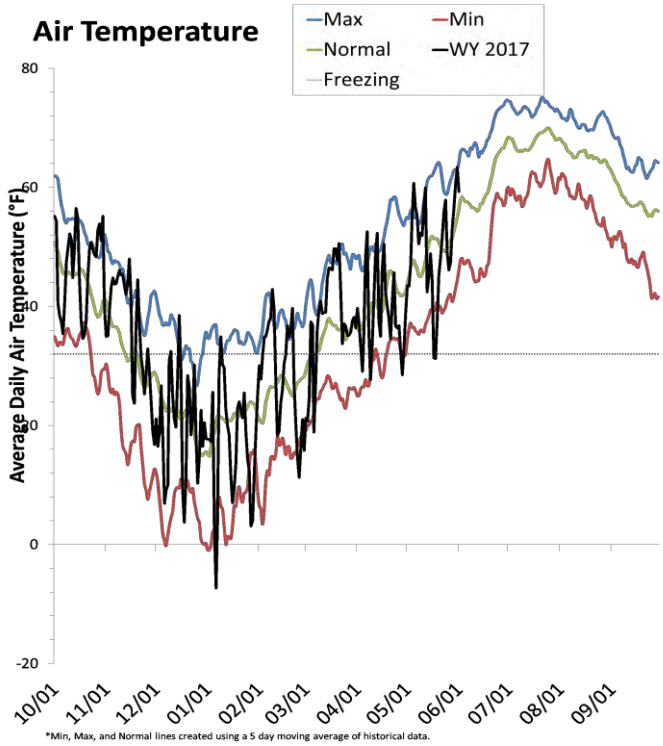
# Northern Mountains

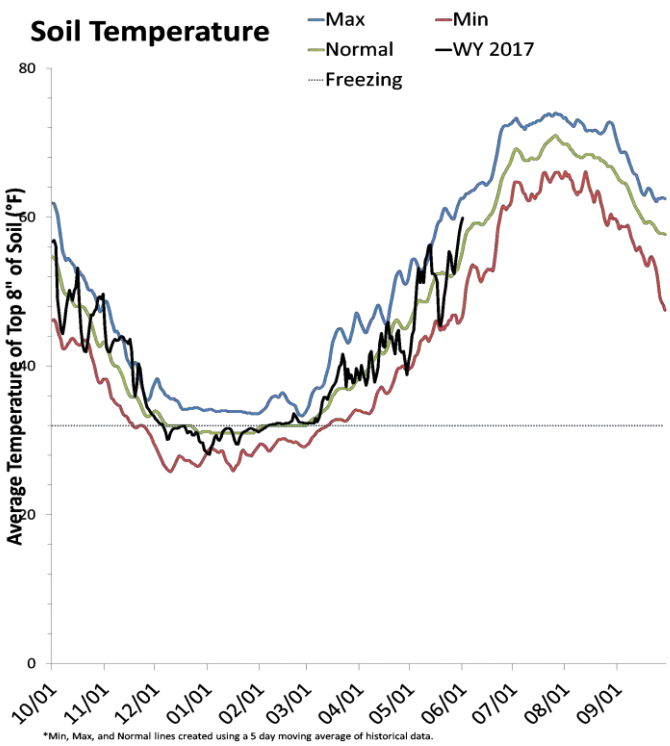
June 1, 2017

The average precipitation in May at SCAN sites within the basin was 0.7 inches, which brings the seasonal accumulation (Oct-May) to 15 inches. Soil moisture is at 55% compared to 62% last year.



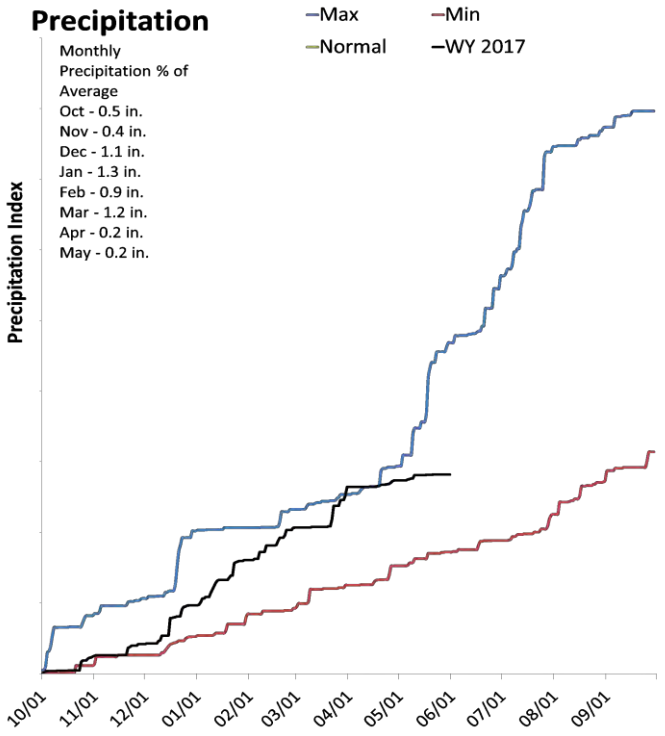



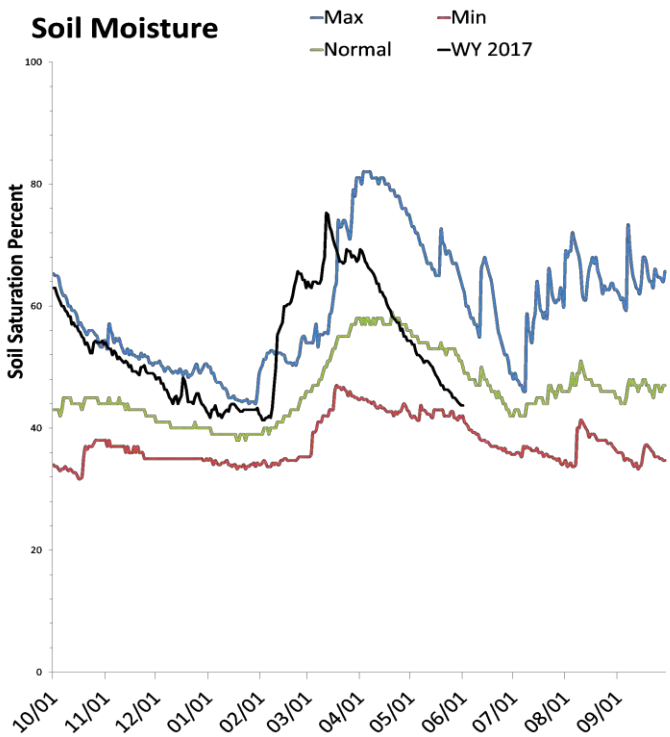



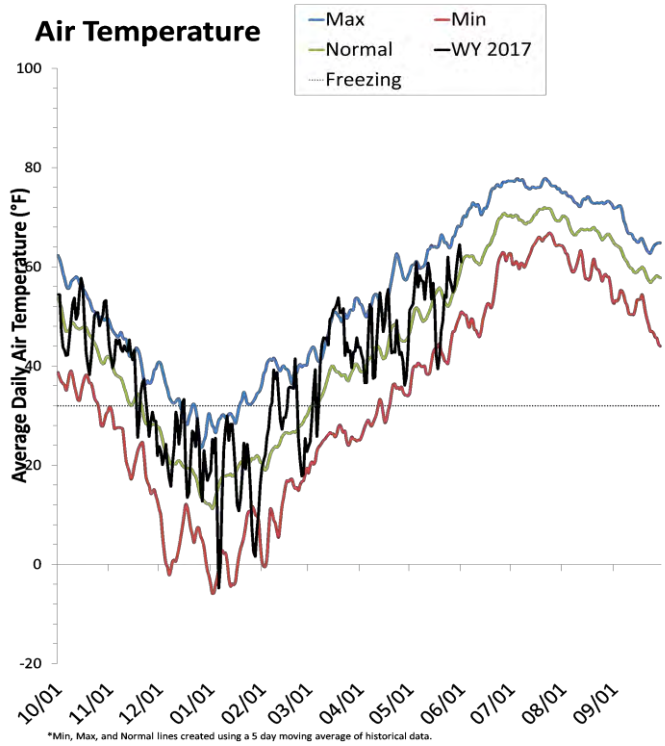
# Uinta Basin

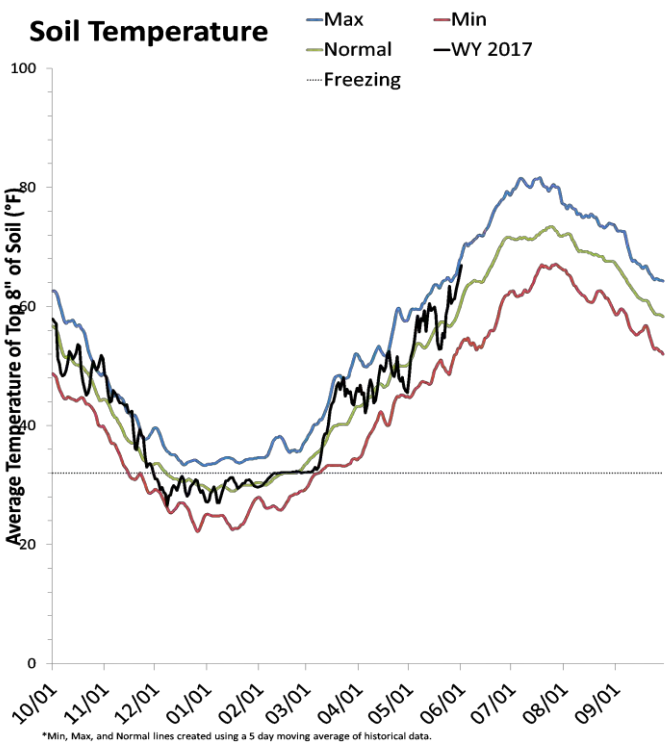
June 1, 2017

The average precipitation in May at SCAN sites within the basin was 0.2 inches, which brings the seasonal accumulation (Oct-May) to 5.6 inches. Soil moisture is at 43% compared to 42% last year.



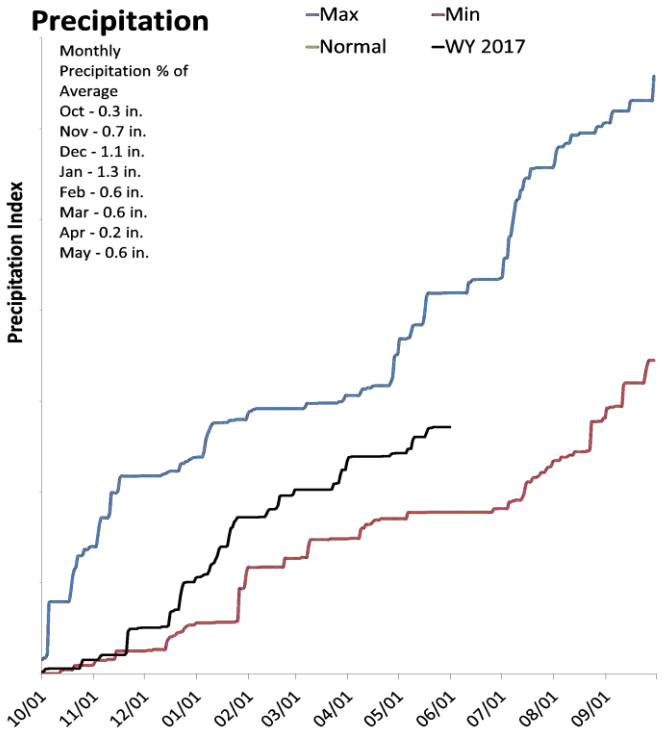



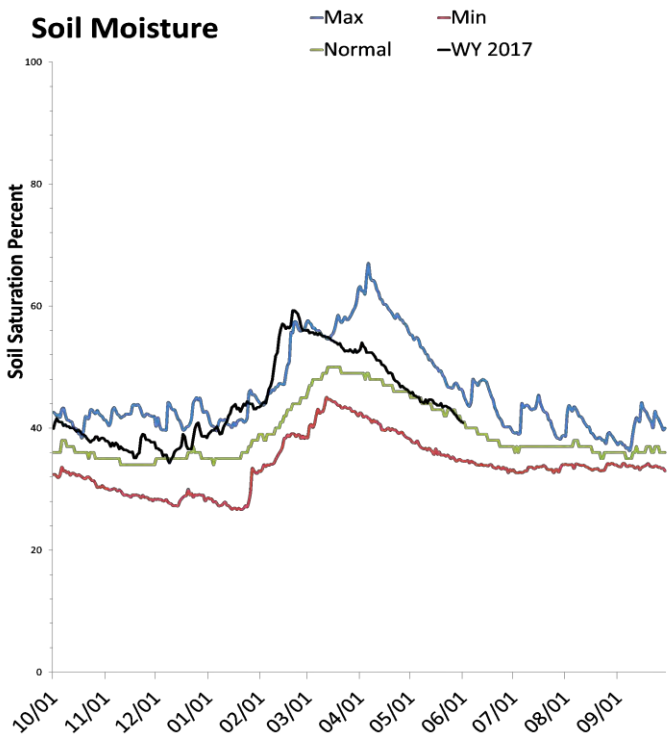



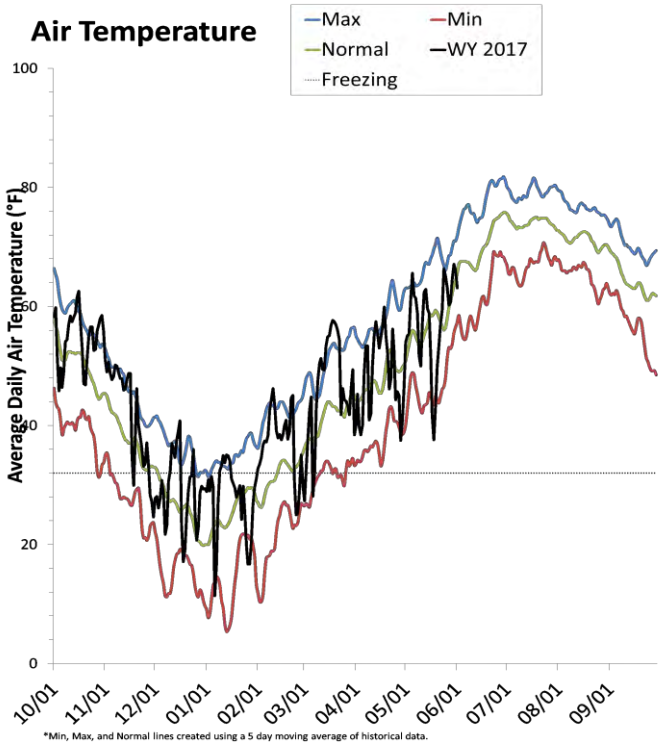
# Southeast

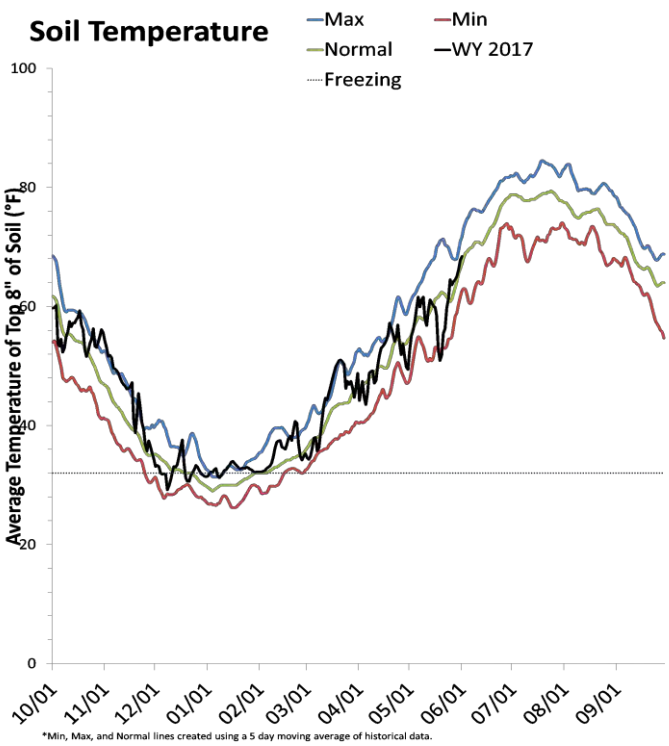
June 1, 2017

The average precipitation in May at SCAN sites within the basin was 0.6 inches, which brings the seasonal accumulation (Oct-May) to 5.4 inches. Soil moisture is at 41% compared to 43% last year.



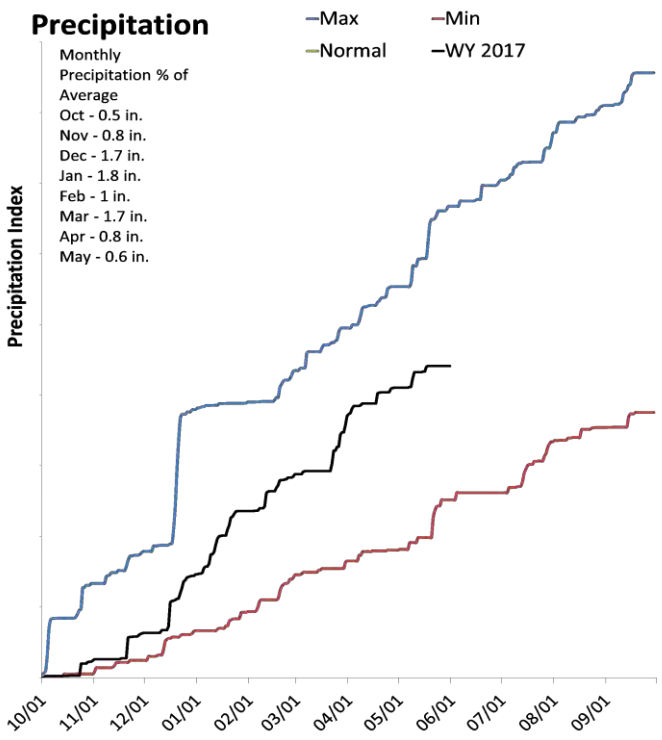



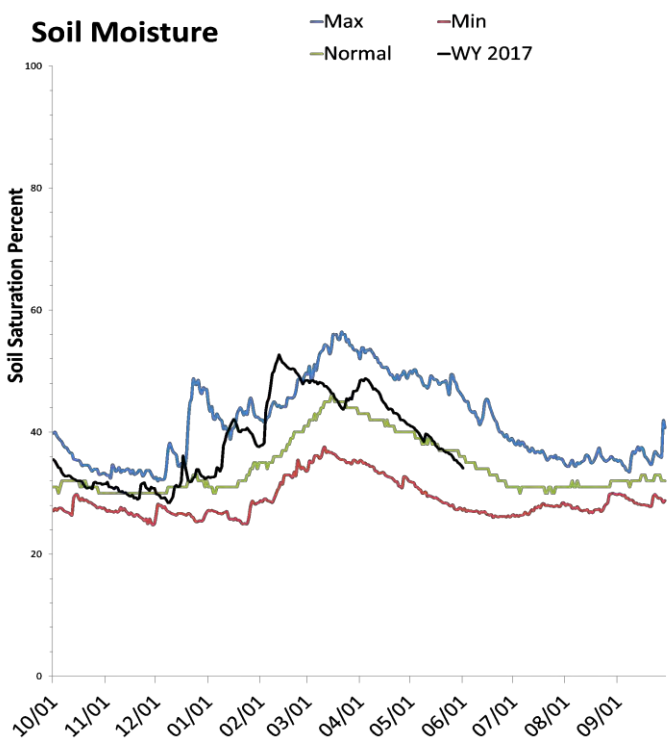



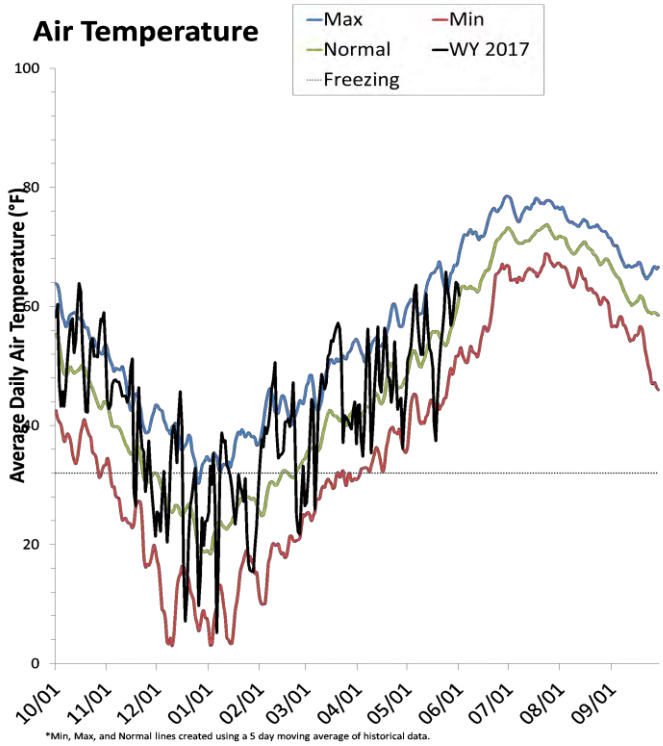
# South Central

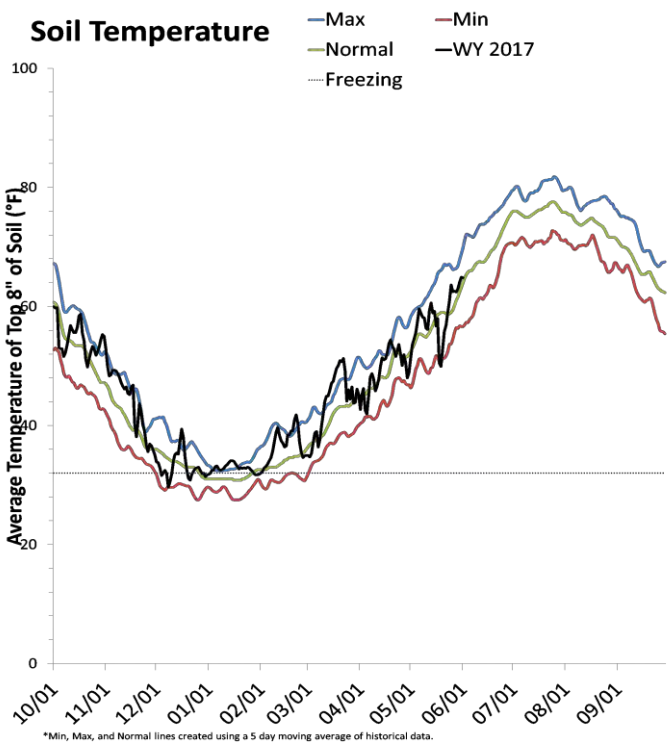
June 1, 2017

The average precipitation in May at SCAN sites within the basin was 0.6 inches, which brings the seasonal accumulation (Oct-May) to 8.8 inches. Soil moisture is at 34% compared to 37% last year.



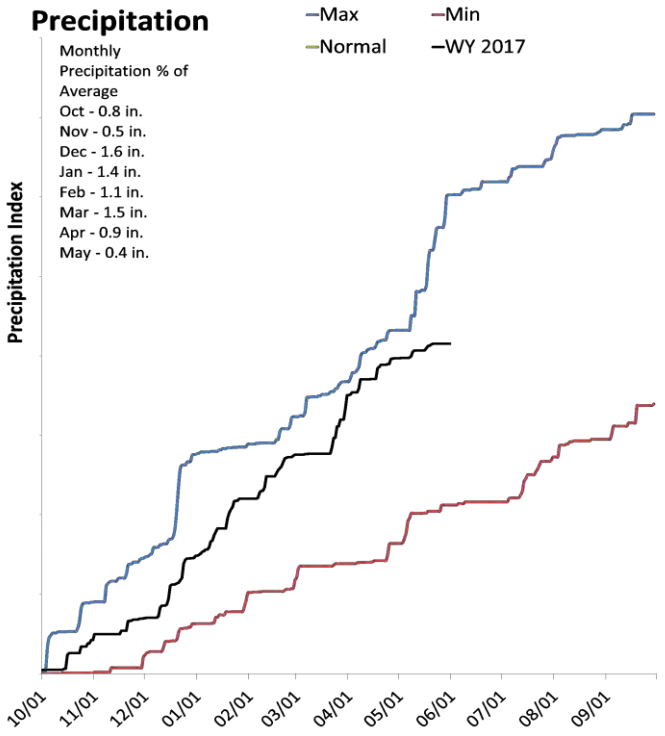



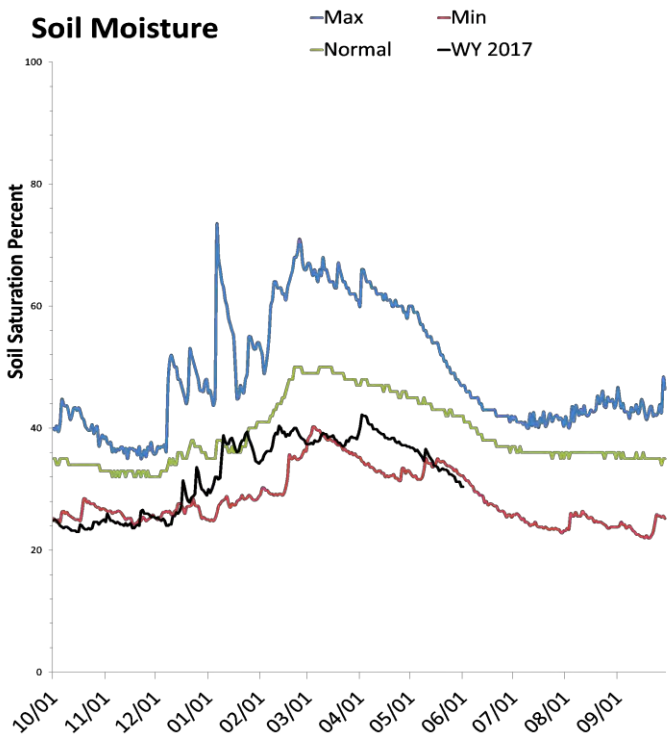



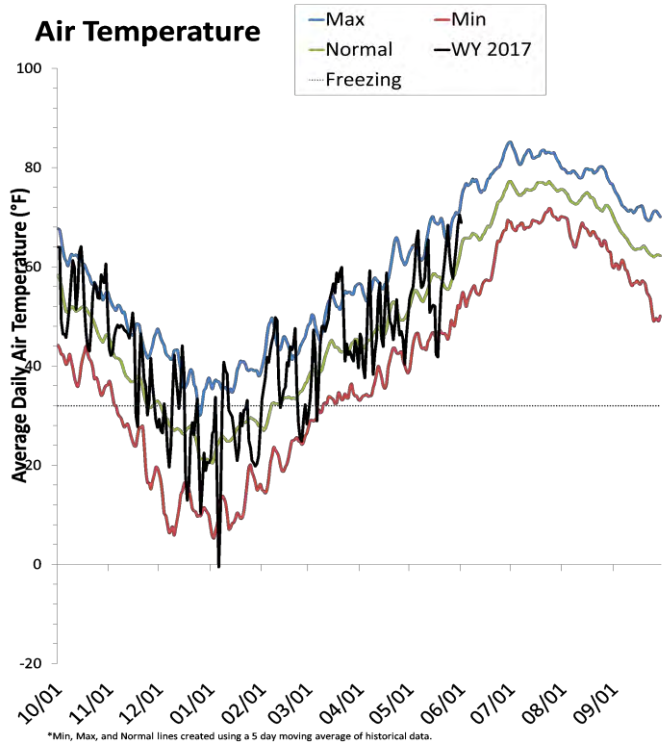
# Western and Dixie

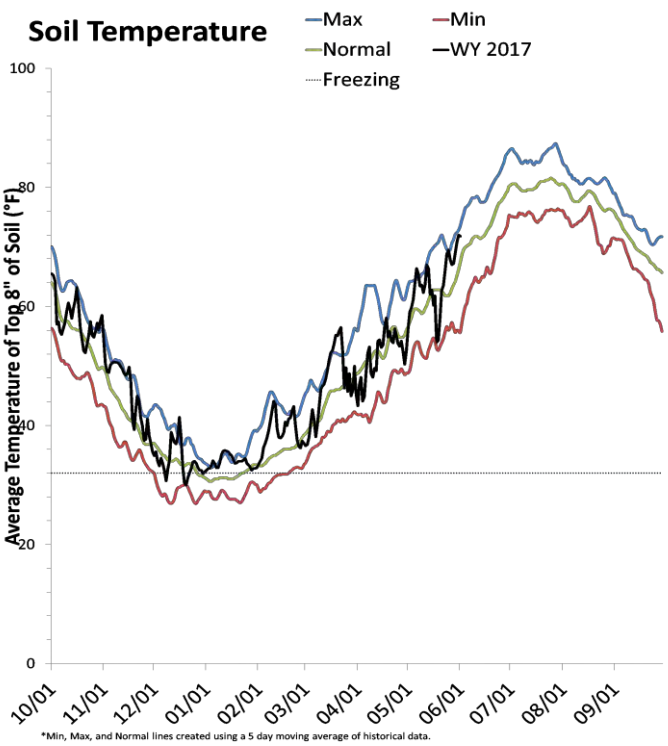
June 1, 2017

The average precipitation in May at SCAN sites within the basin was 0.4 inches, which brings the seasonal accumulation (Oct-May) to 8.3 inches. Soil moisture is at 30% compared to 32% last year.



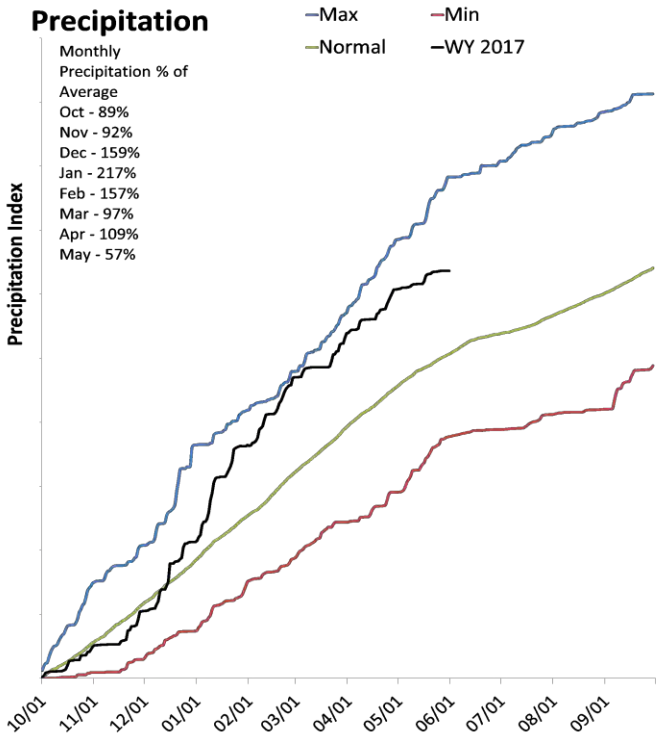



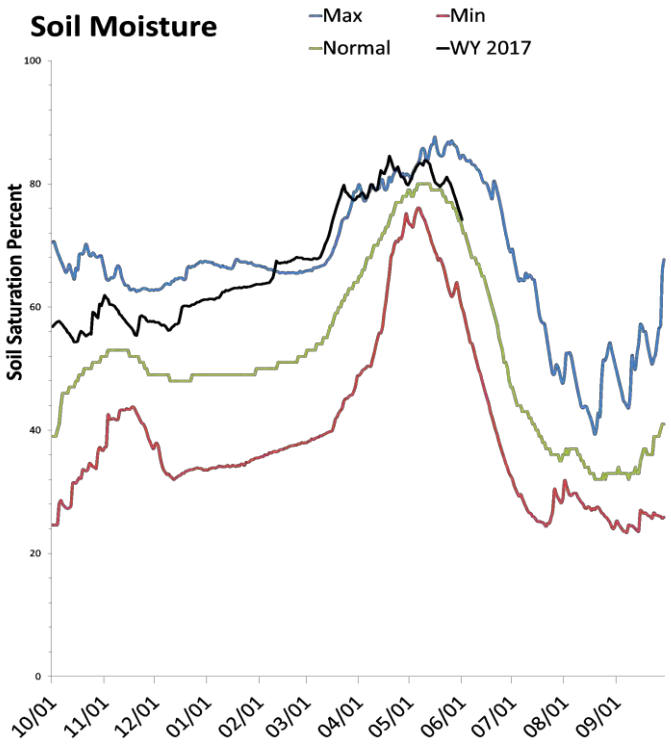



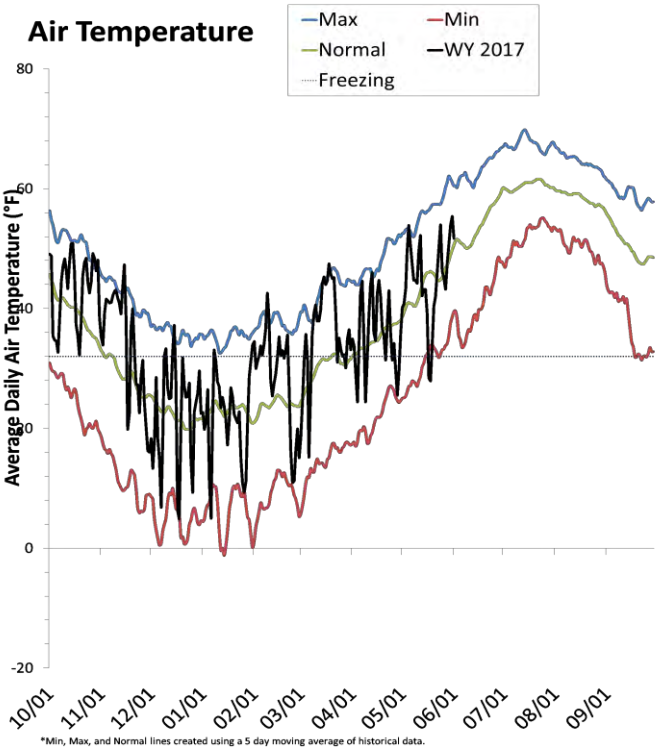
# Statewide SNOTEL

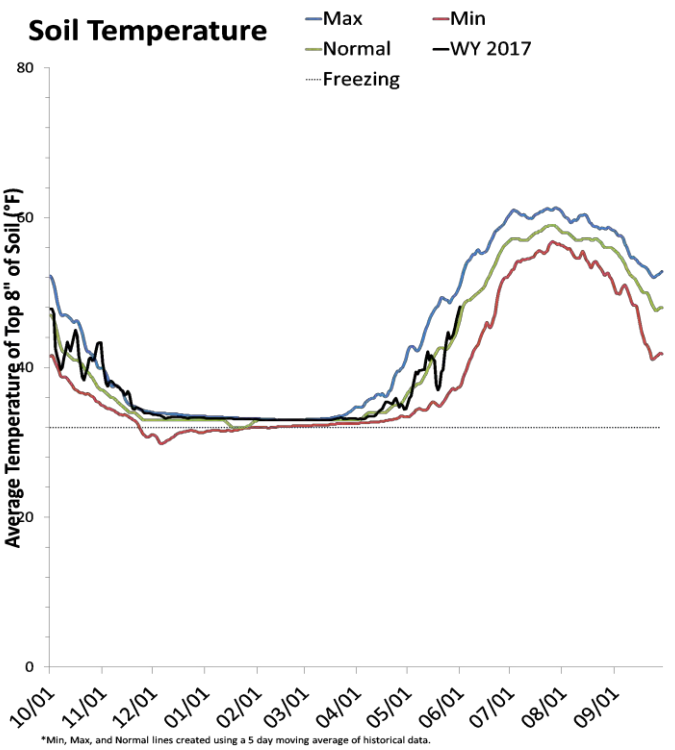
June 1, 2017

Precipitation at SNOTEL sites during May was much below average at 55%, which brings the seasonal accumulation (Oct-May) to 127% of average. Soil moisture is at 74% compared to 74% last year. Reservoir storage is at 81% of capacity, compared to 64% last year.



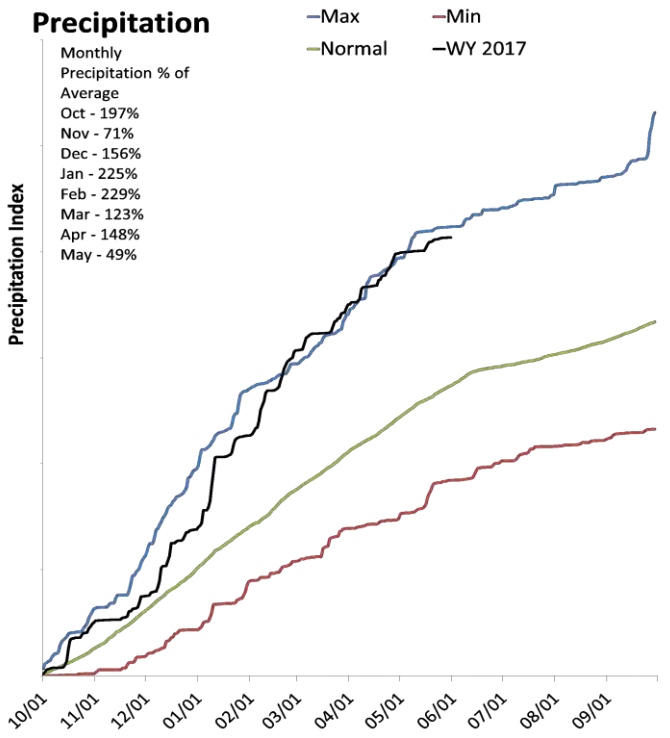



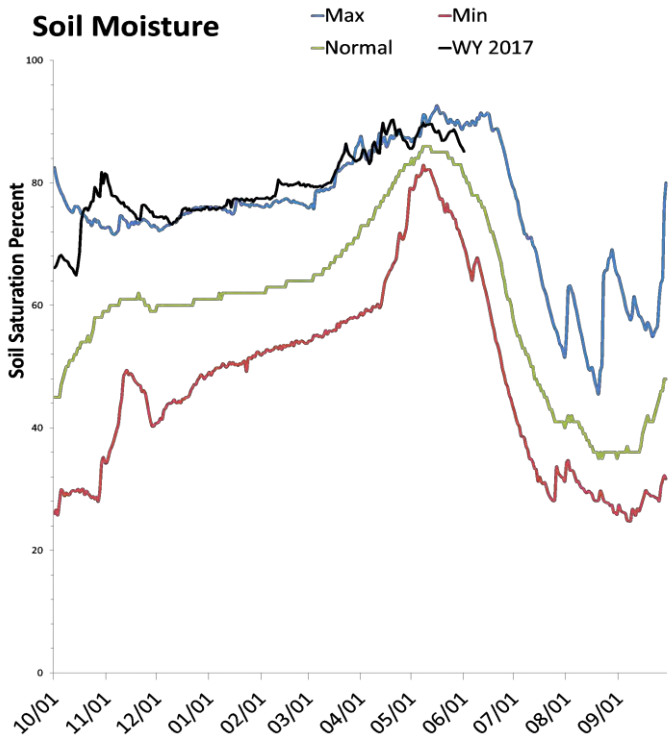



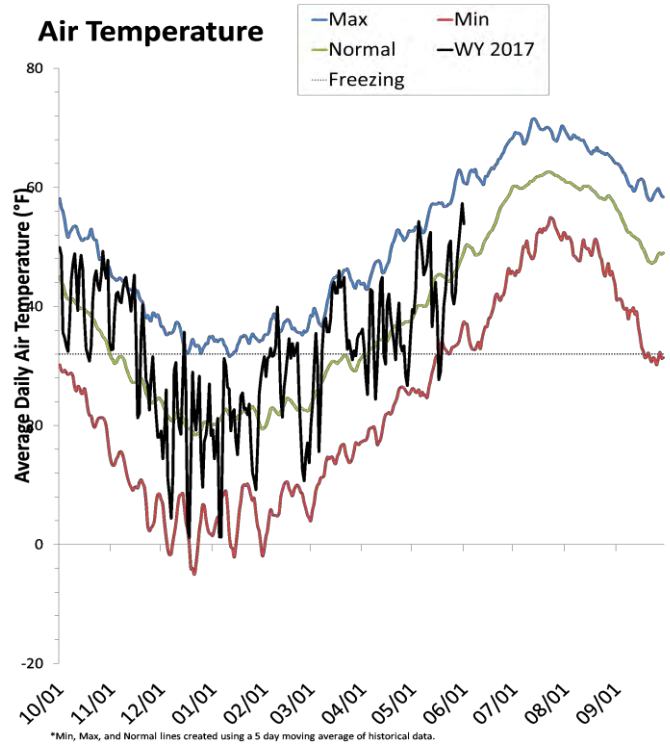
# Bear River Basin

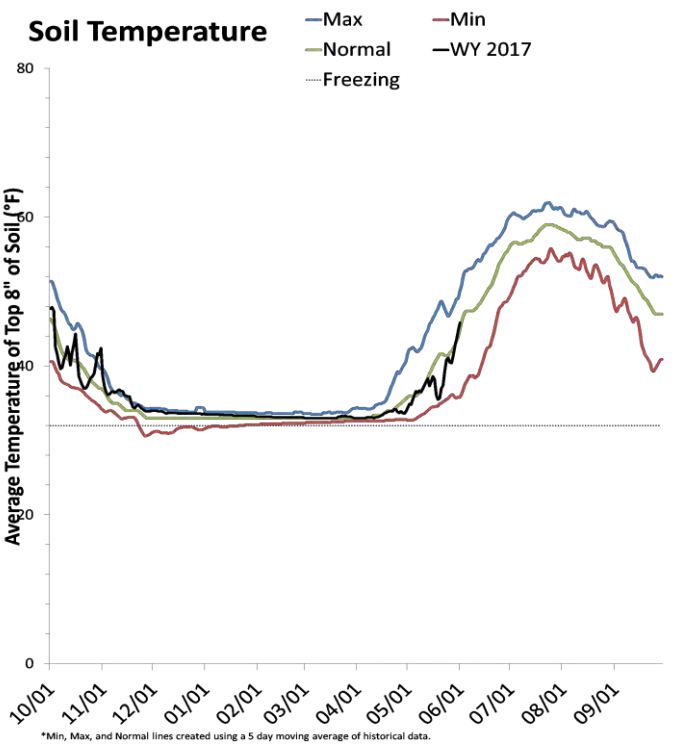
June 1, 2017

Precipitation in May was much below average at 50%, which brings the seasonal accumulation (Oct-May) to 151% of average. Soil moisture is at 85% compared to 80% last year. Reservoir storage is at 84% of capacity, compared to 52% last year. The water availability index for the Bear River is 79%, 95% for Woodruff Narrows and 85% for the Little Bear.



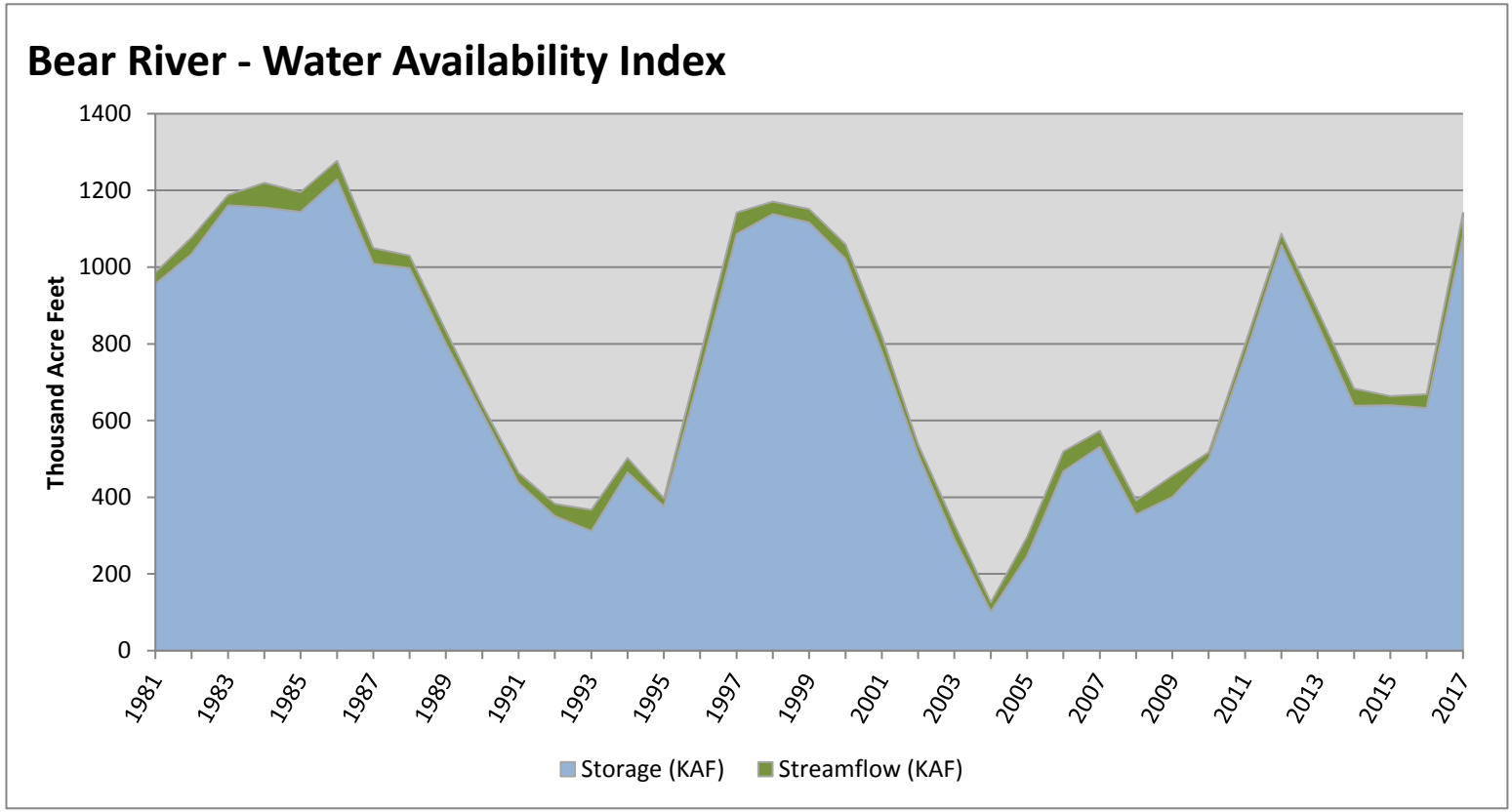

SNOTEL Data

June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Bear River** | **1080.85** | **60.97** | **1141.82** | **79** | **2.41** | **82, 12, 97, 99** |

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

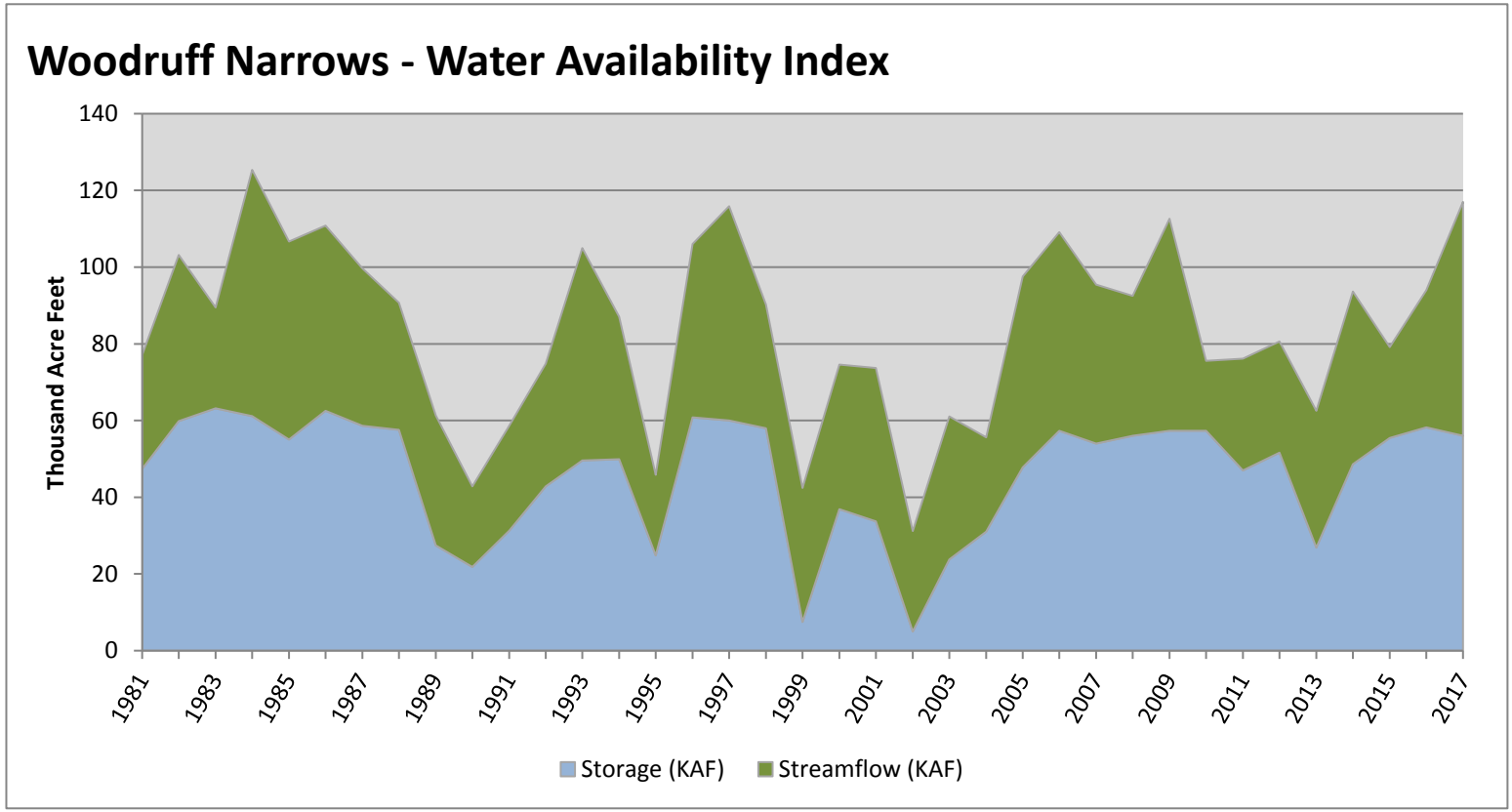


June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Woodruff Narrows** | **56.00** | **60.97** | **116.97** | **95** | **3.73** | **84, 97, 09, 86** |

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

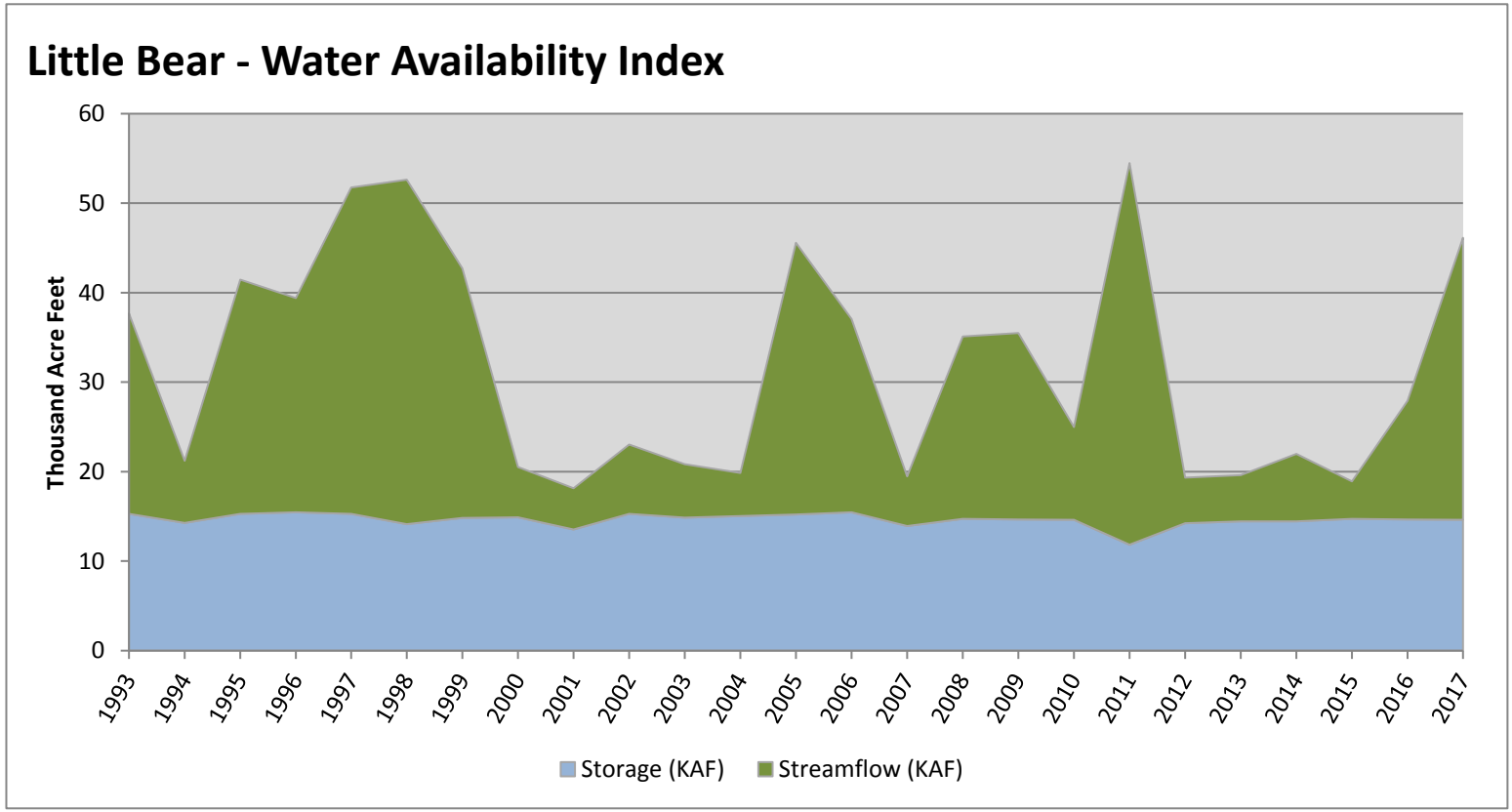


June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Little Bear** | **14.63** | **31.49** | **46.12** | **85** | **2.88** | **99, 05, 97, 98** |

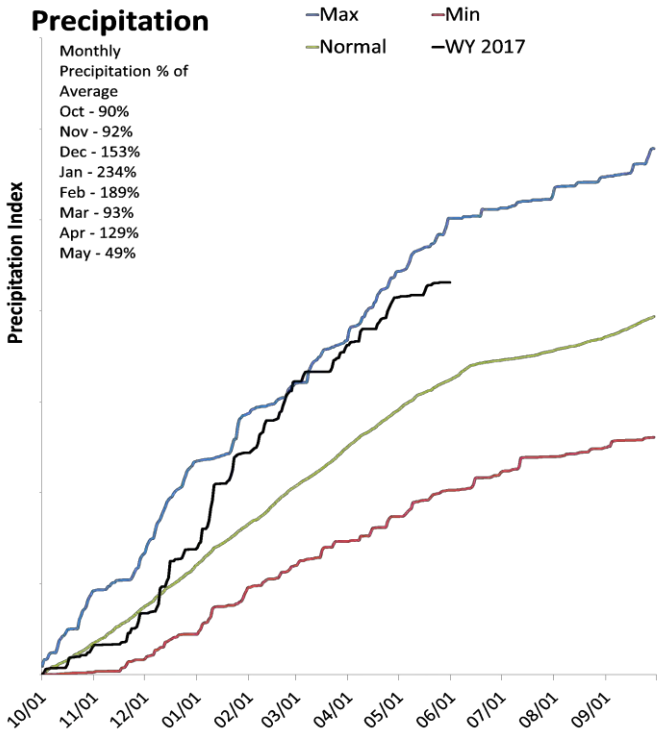
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

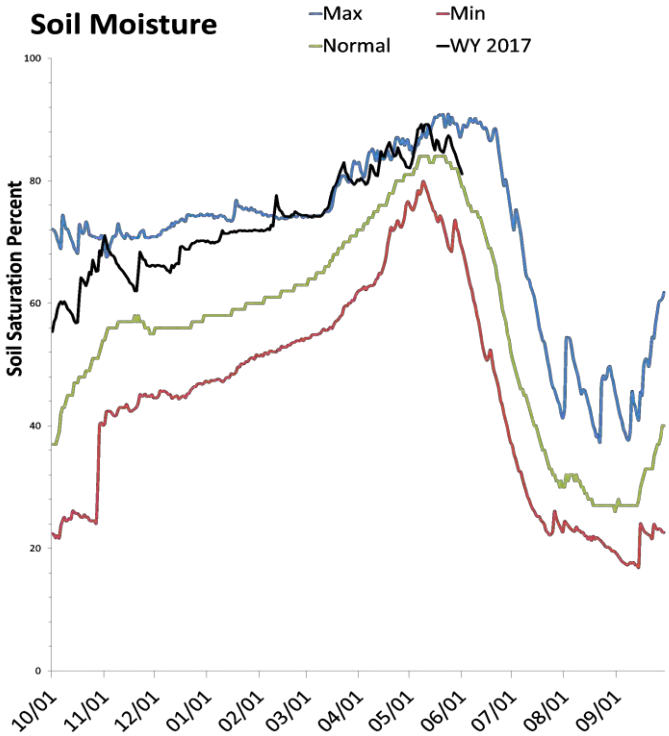


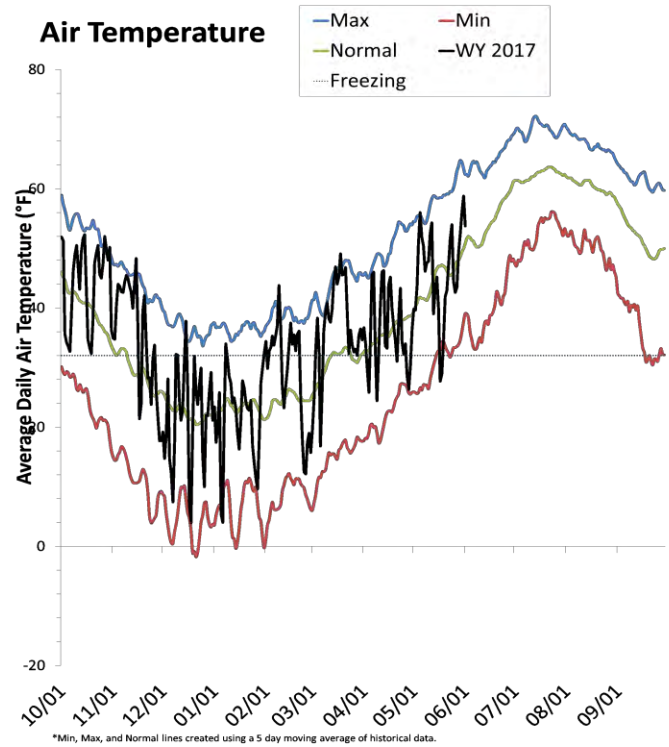
# Weber & Ogden River Basins

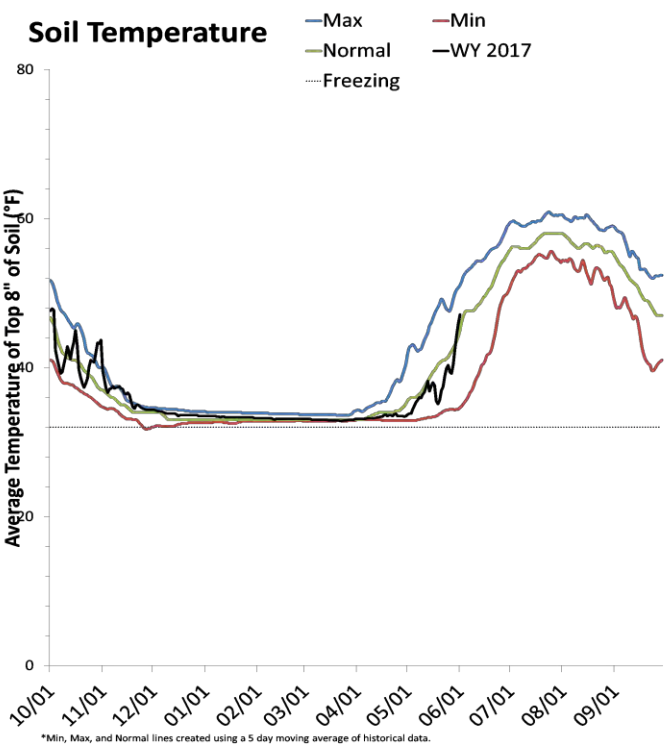
June 1, 2017

Precipitation in May was much below average at 49%, which brings the seasonal accumulation (Oct-May) to 133% of average. Soil moisture is at 81% compared to 73% last year. Reservoir storage is at 99% of capacity, compared to 87% last year. The water availability index for the Ogden River is 82% and 86% for the Weber River.



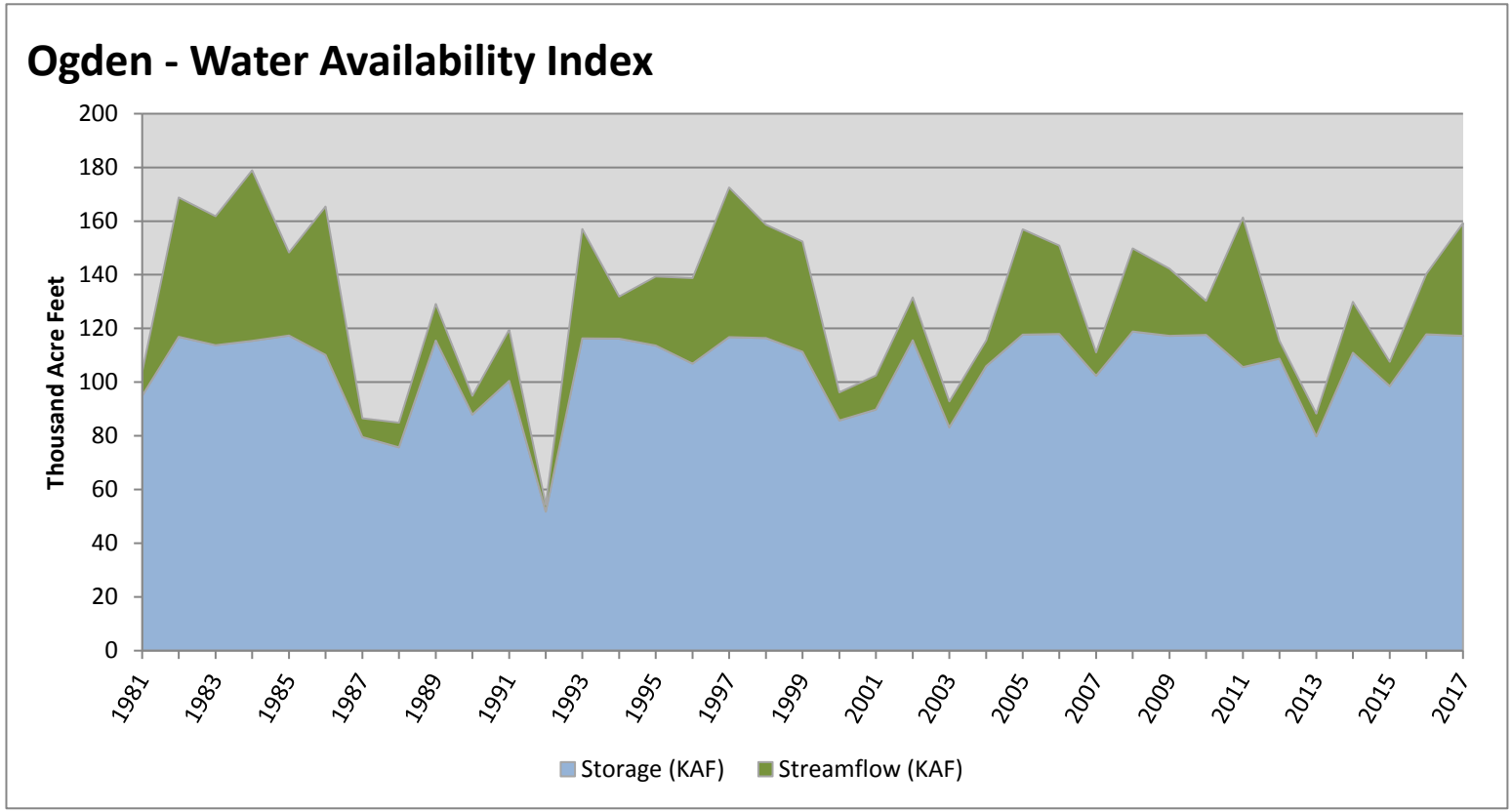

SNOTEL Data

June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Ogden** | **117.28** | **42.00** | **159.28** | **82** | **2.63** | **93, 98, 11, 83** |

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

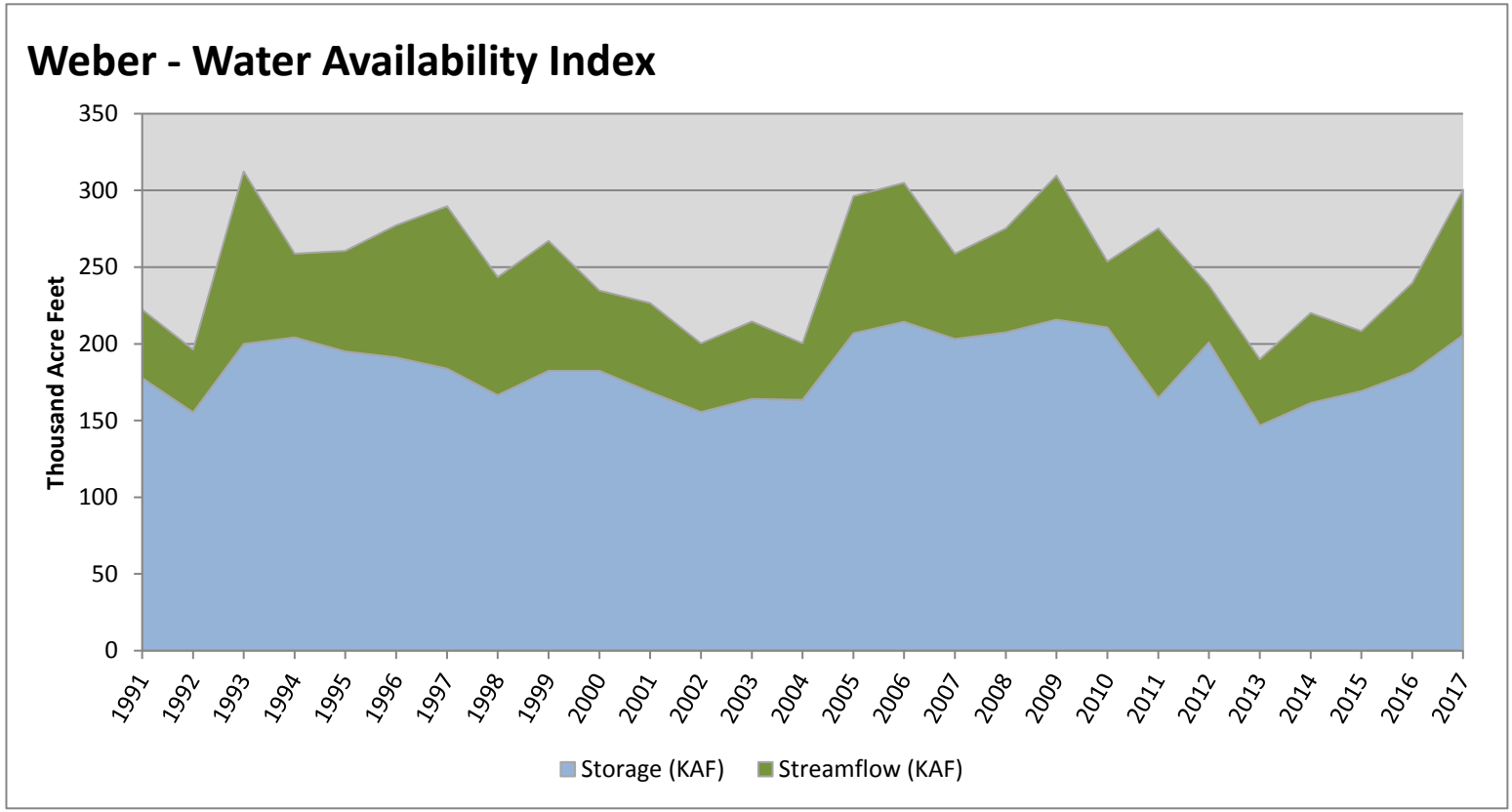


June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Weber** | **205.55** | **94.87** | **300.42** | **86** | **2.98** | **97, 05, 06, 09** |

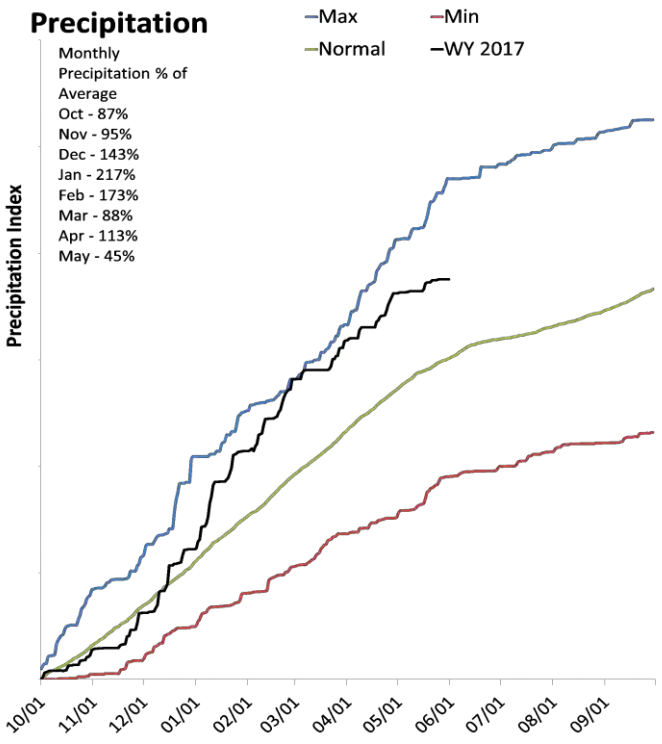
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

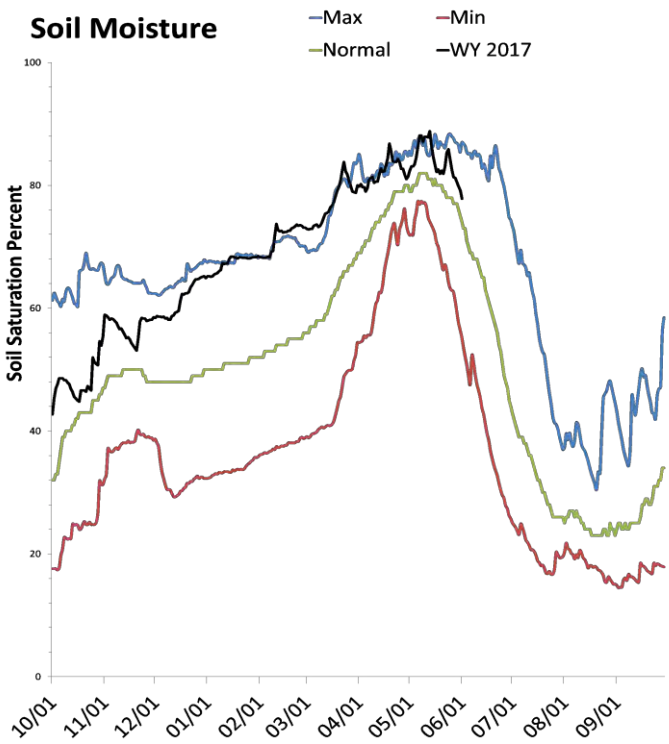


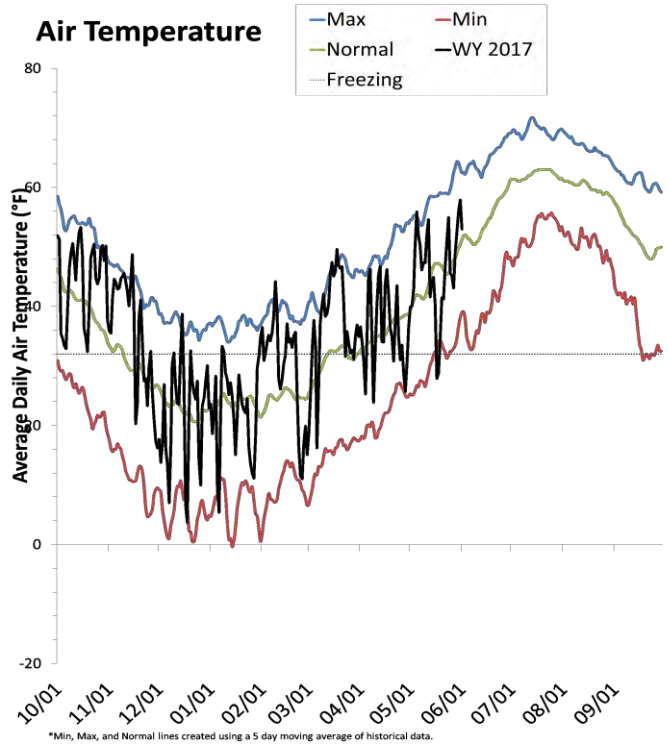
# Provo & Jordan River Basins

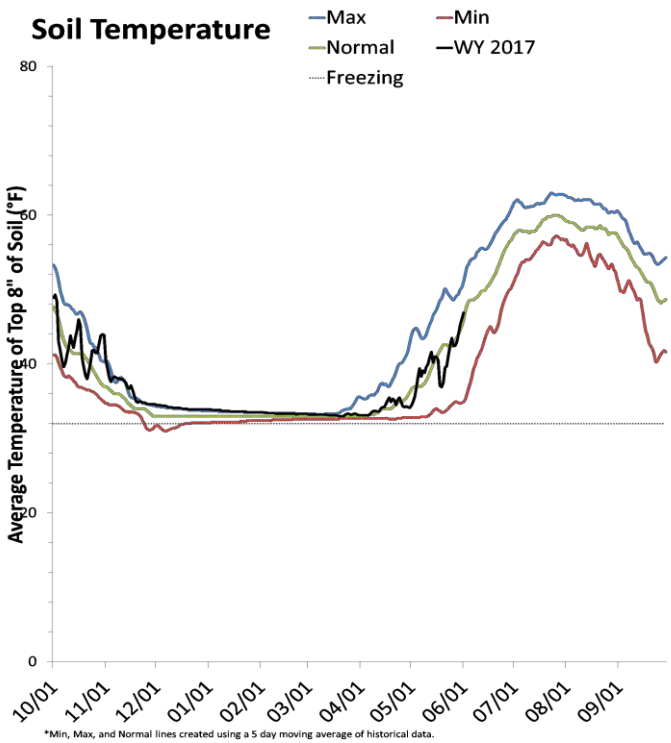
June 1, 2017

Precipitation in May was much below average at 45%, which brings the seasonal accumulation (Oct-May) to 125% of average. Soil moisture is at 77% compared to 70% last year. Reservoir storage is at 82% of capacity, compared to 68% last year. The water availability index for the Provo River is 87%.



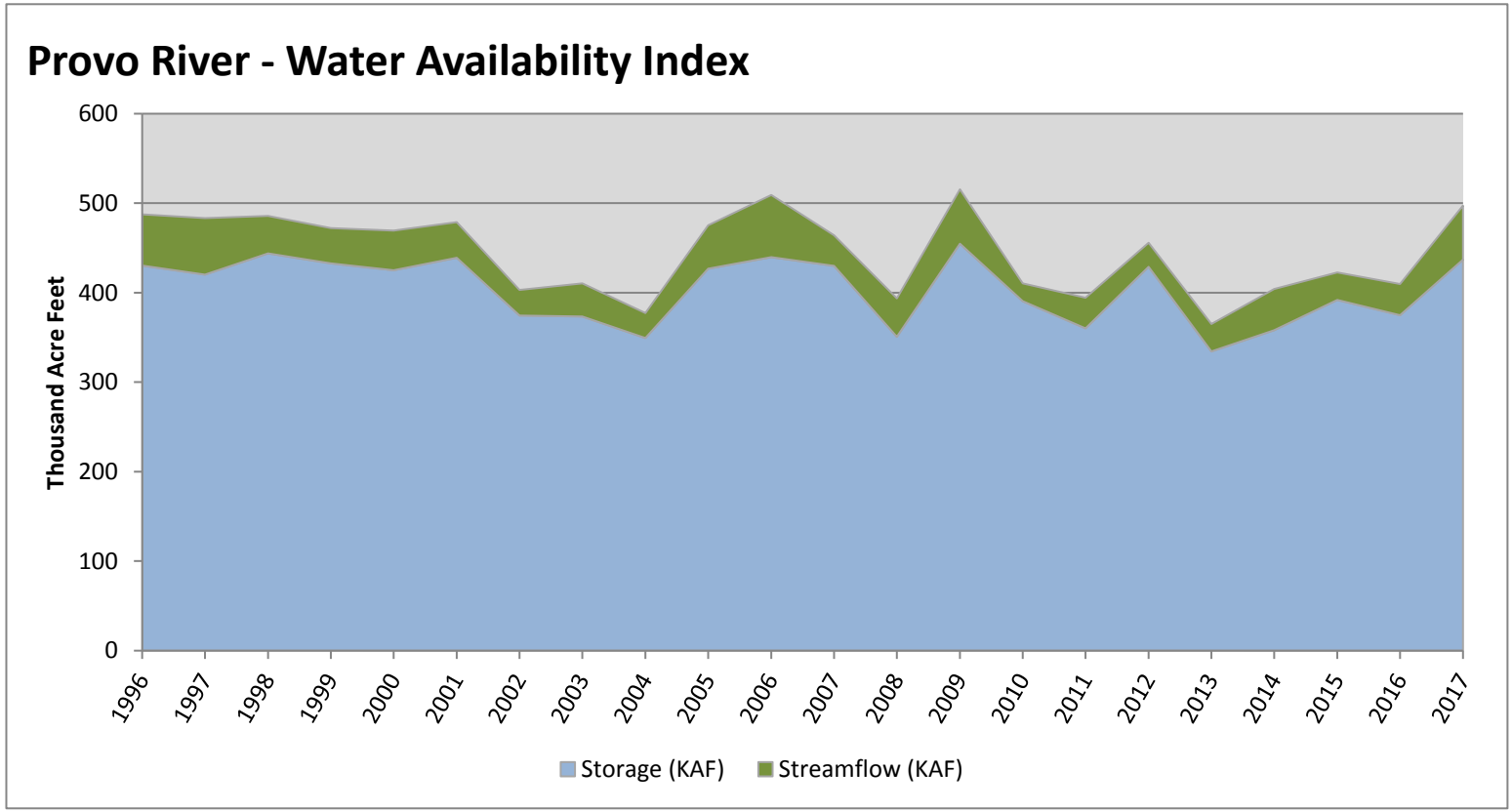

SNOTEL Data

June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Provo River** | **436.80** | **60.31** | **497.11** | **87** | **3.08** | **98, 96, 06, 09** |

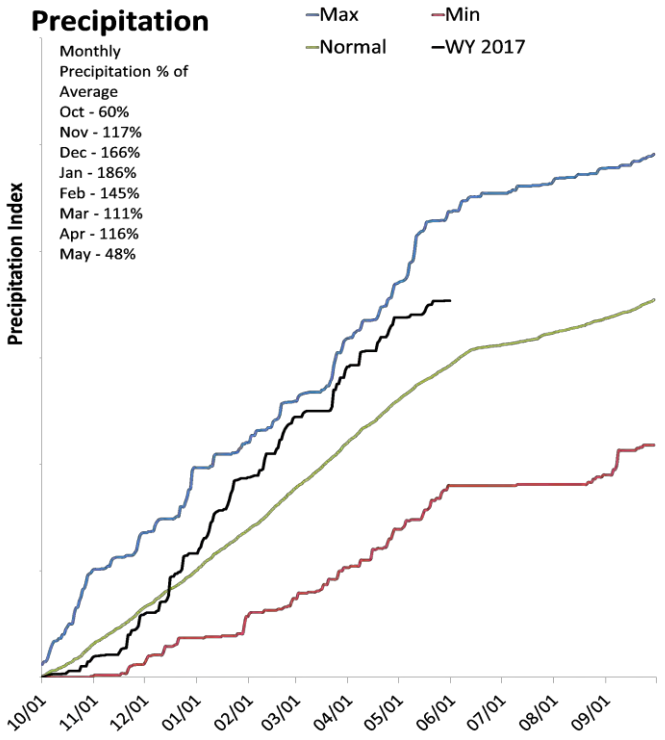
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

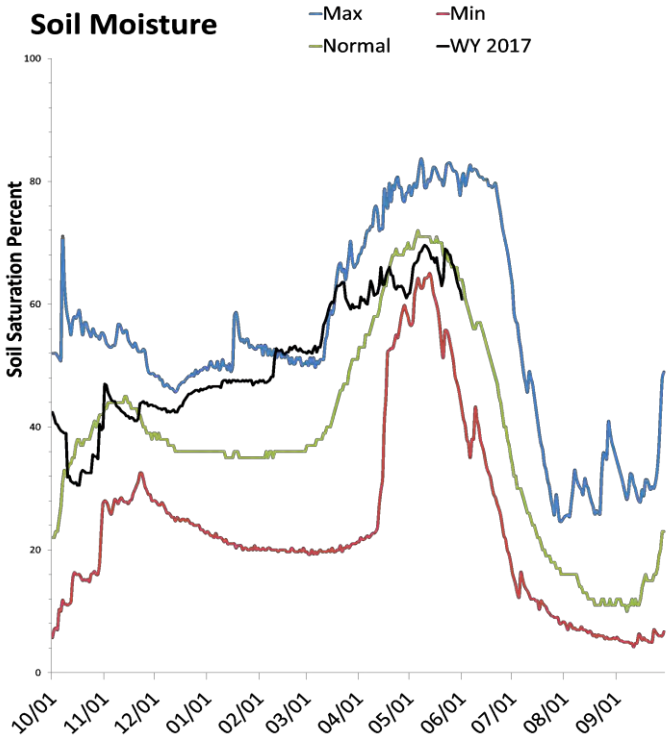


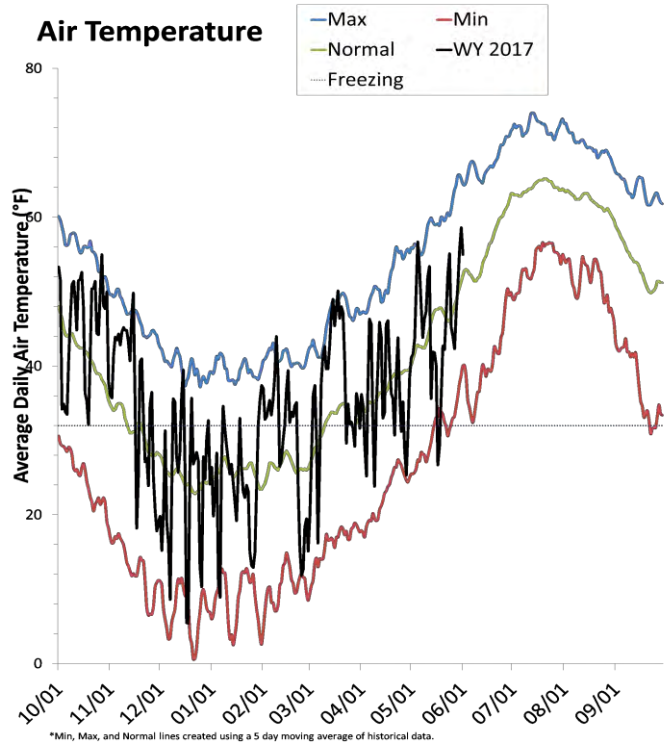
# Tooele Valley & West Desert Basins

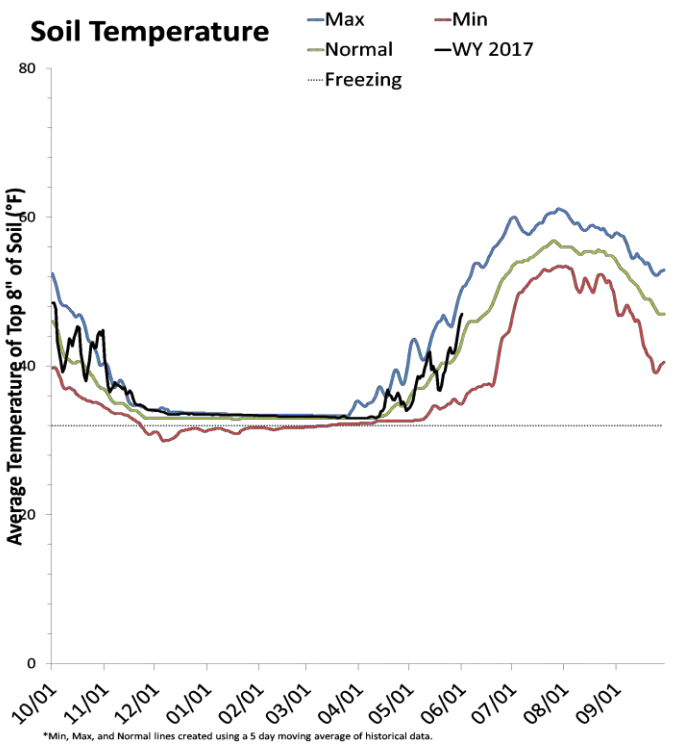
June 1, 2017

Precipitation in May was much below average at 48%, which brings the seasonal accumulation (Oct-May) to 121% of average. Soil moisture is at 62% compared to 55% last year. Reservoir storage is at 102% of capacity, compared to 78% last year.



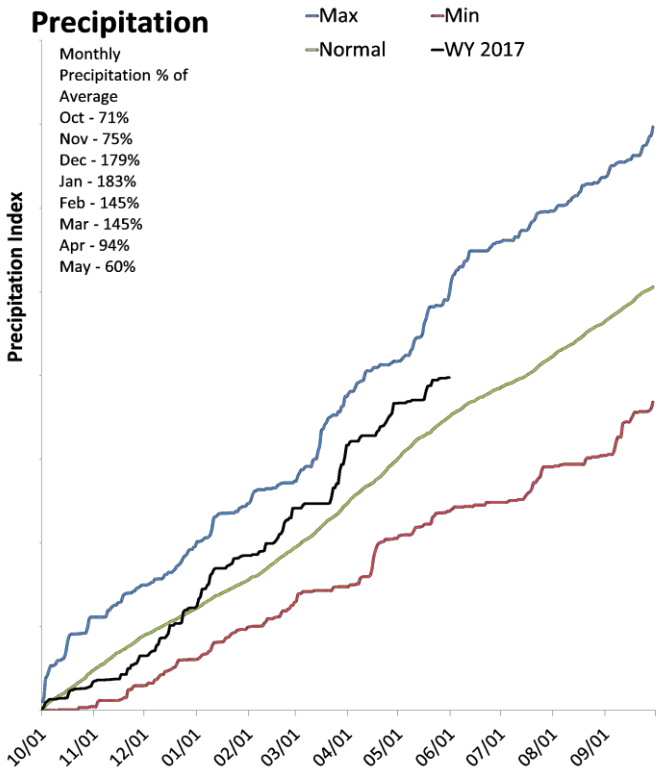



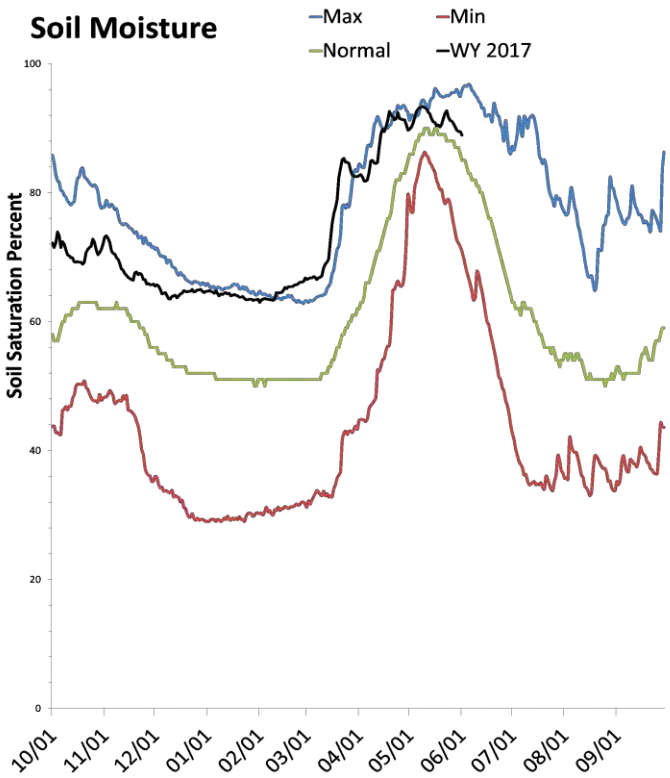

SNOTEL Data

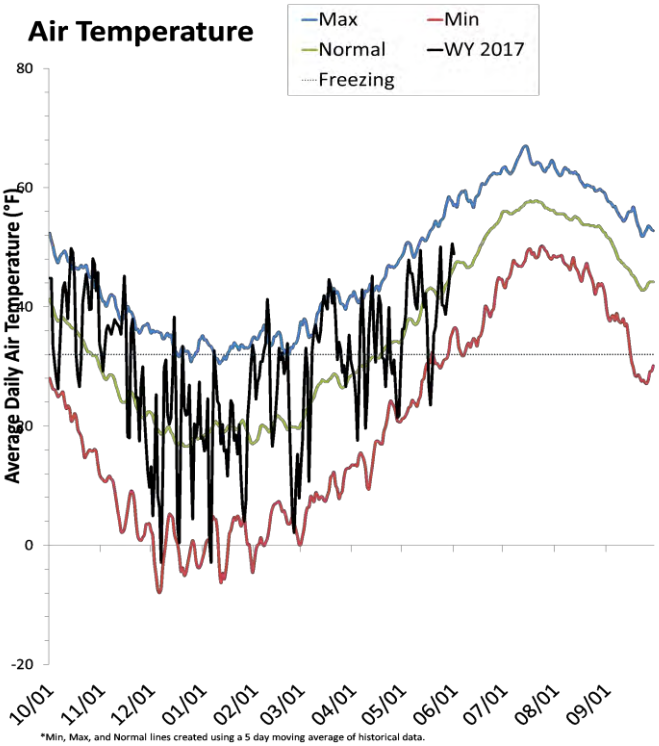
# Northeastern Uinta Basin

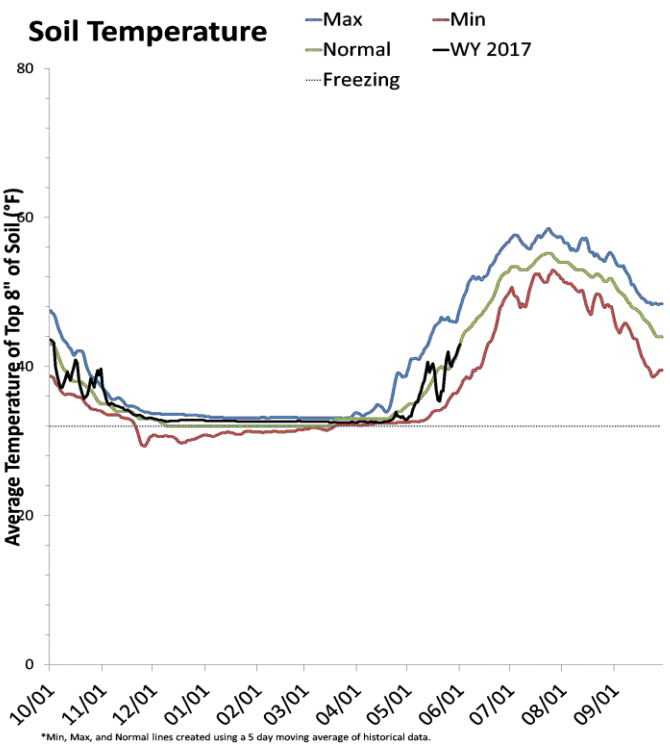
June 1, 2017

Precipitation in May was much below average at 60%, which brings the seasonal accumulation (Oct-May) to 113% of average. Soil moisture is at 88% compared to 92% last year. Reservoir storage is at 86% of capacity, compared to 91% last year. The water availability index for Blacks Fork is 89% and 97% for Smiths Creek.



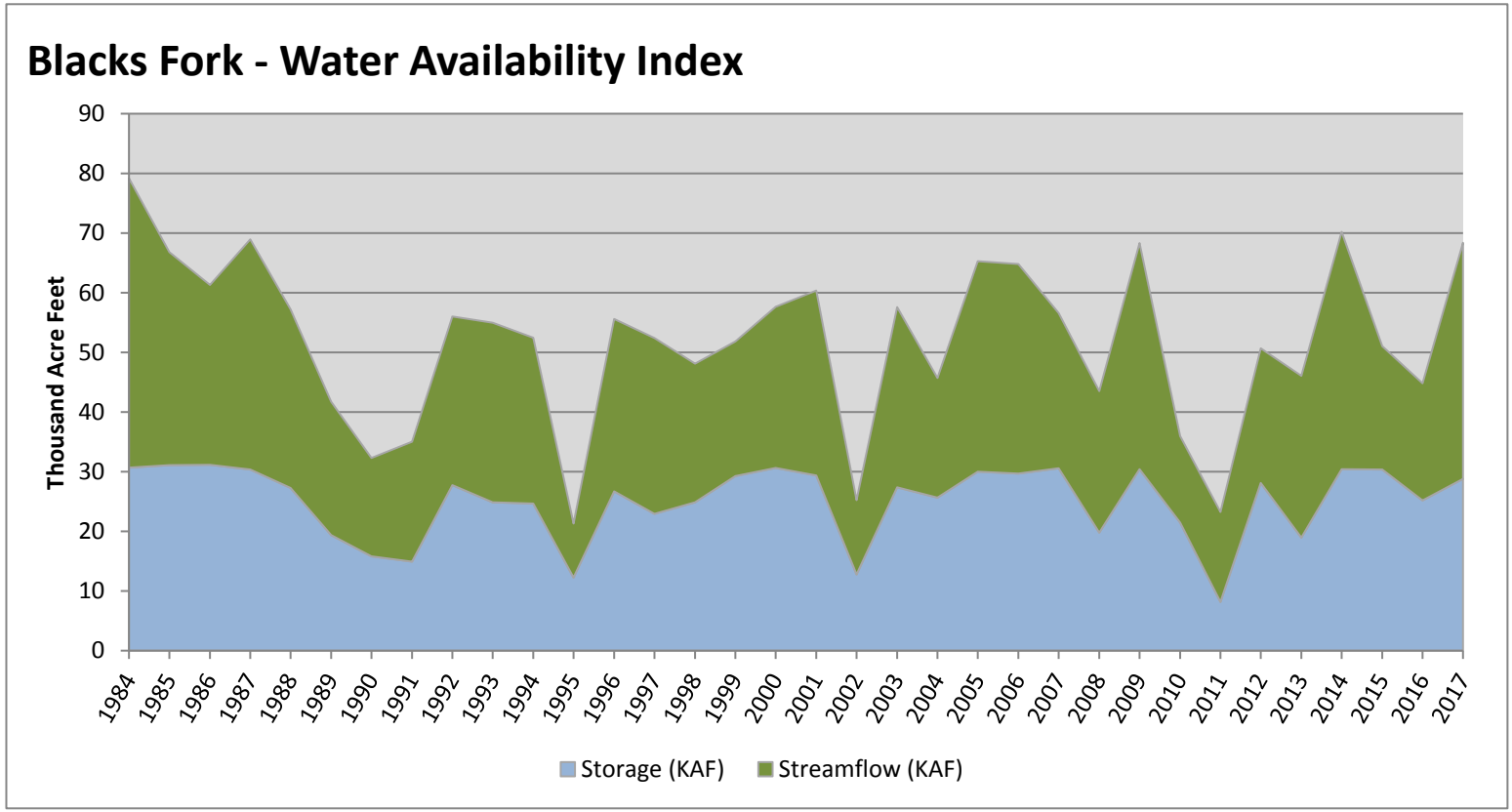

SNOTEL Data

June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Blacks Fork** | **28.80** | **39.56** | **68.36** | **89** | **3.21** | **85, 09, 87, 14** |

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

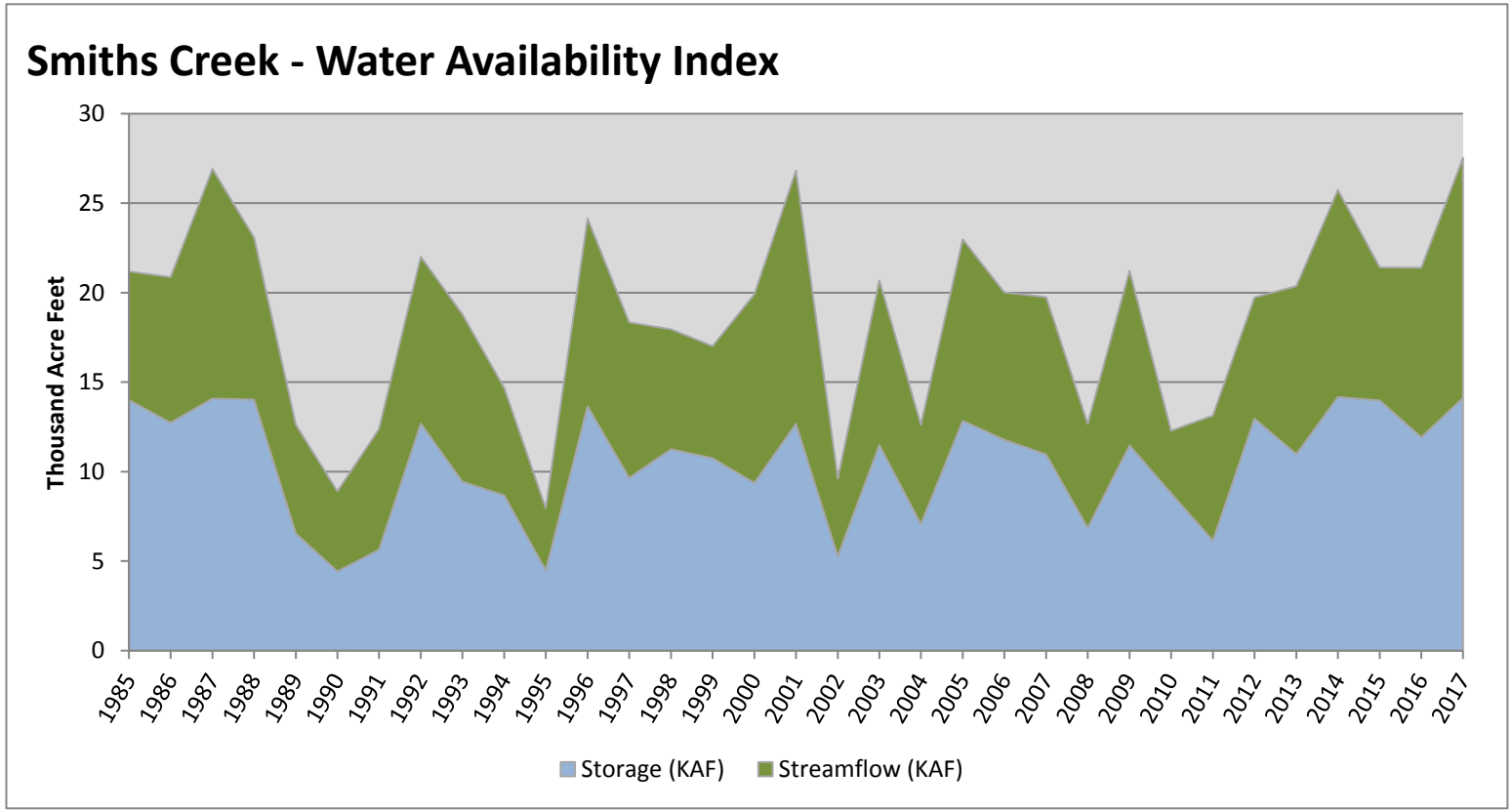


June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Smiths Creek** | **14.12** | **13.40** | **27.52** | **97** | **3.92** | **87, 01, 14, 96** |

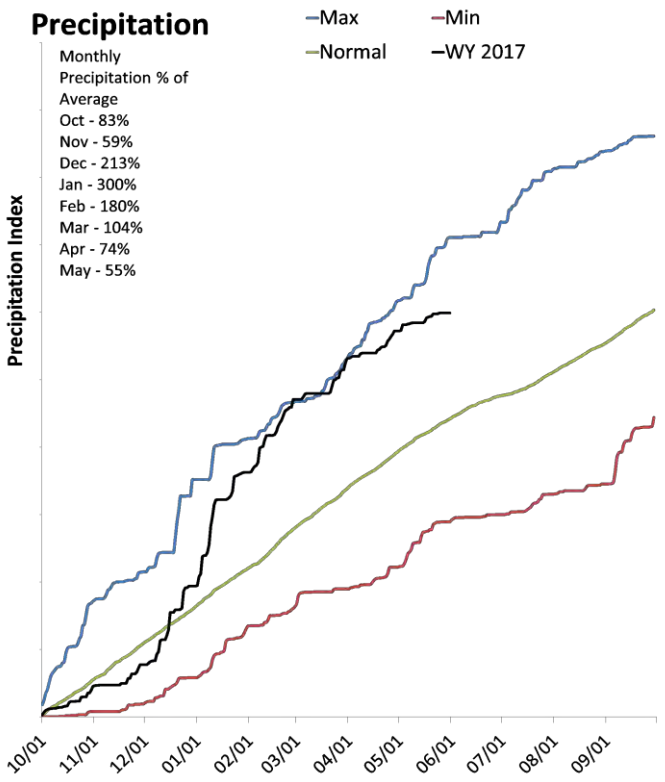
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

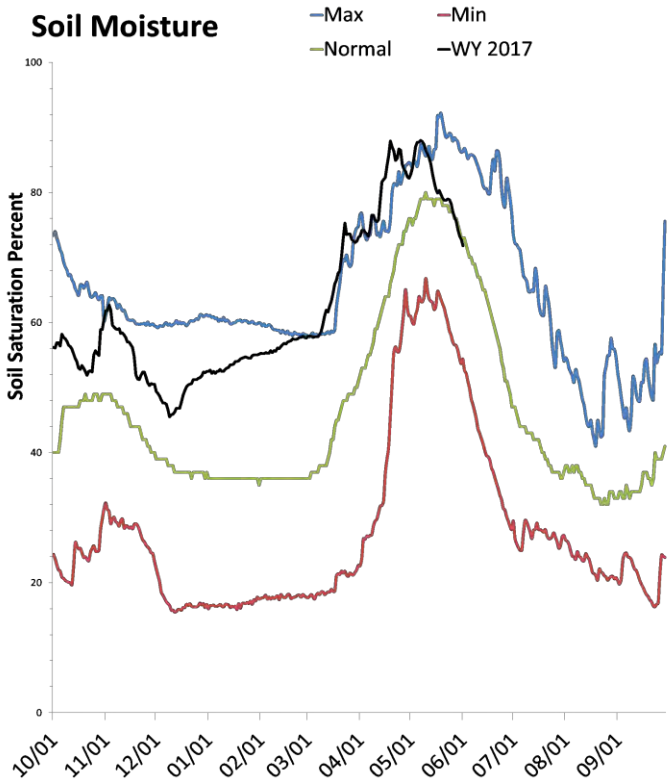


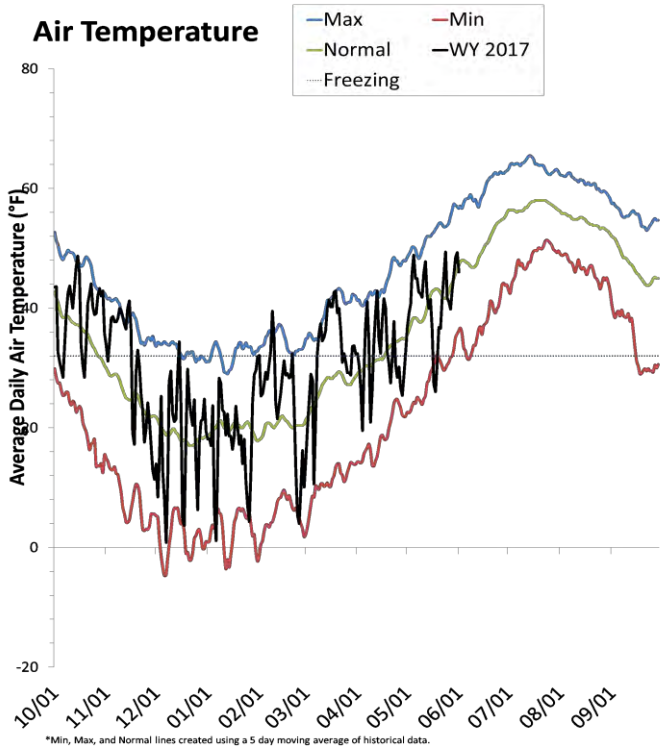
# Duchesne River Basin

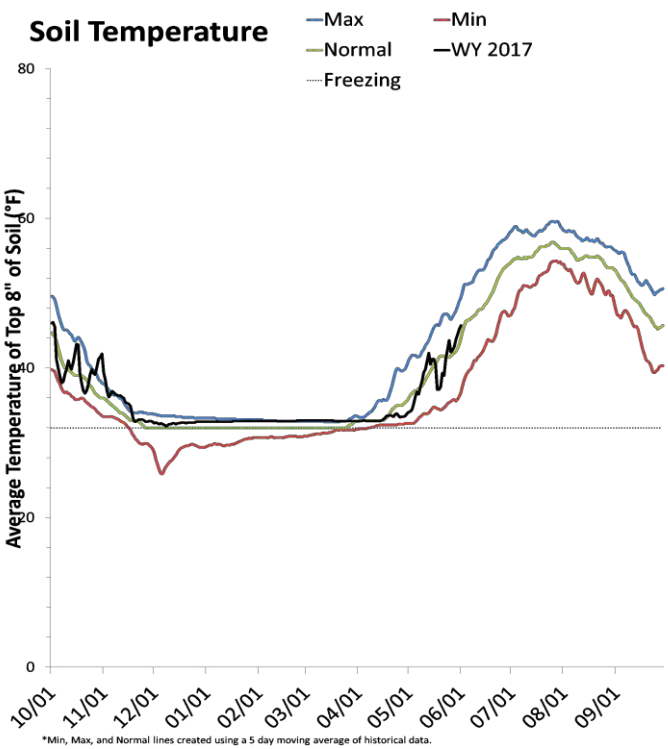
June 1, 2017

Precipitation in May was much below average at 38%, which brings the seasonal accumulation (Oct-May) to 134% of average. Soil moisture is at 72% compared to 83% last year. Reservoir storage is at 82% of capacity, compared to 77% last year. The water availability index for the Western Uintas is 48% and 29% for the Eastern Uintas.



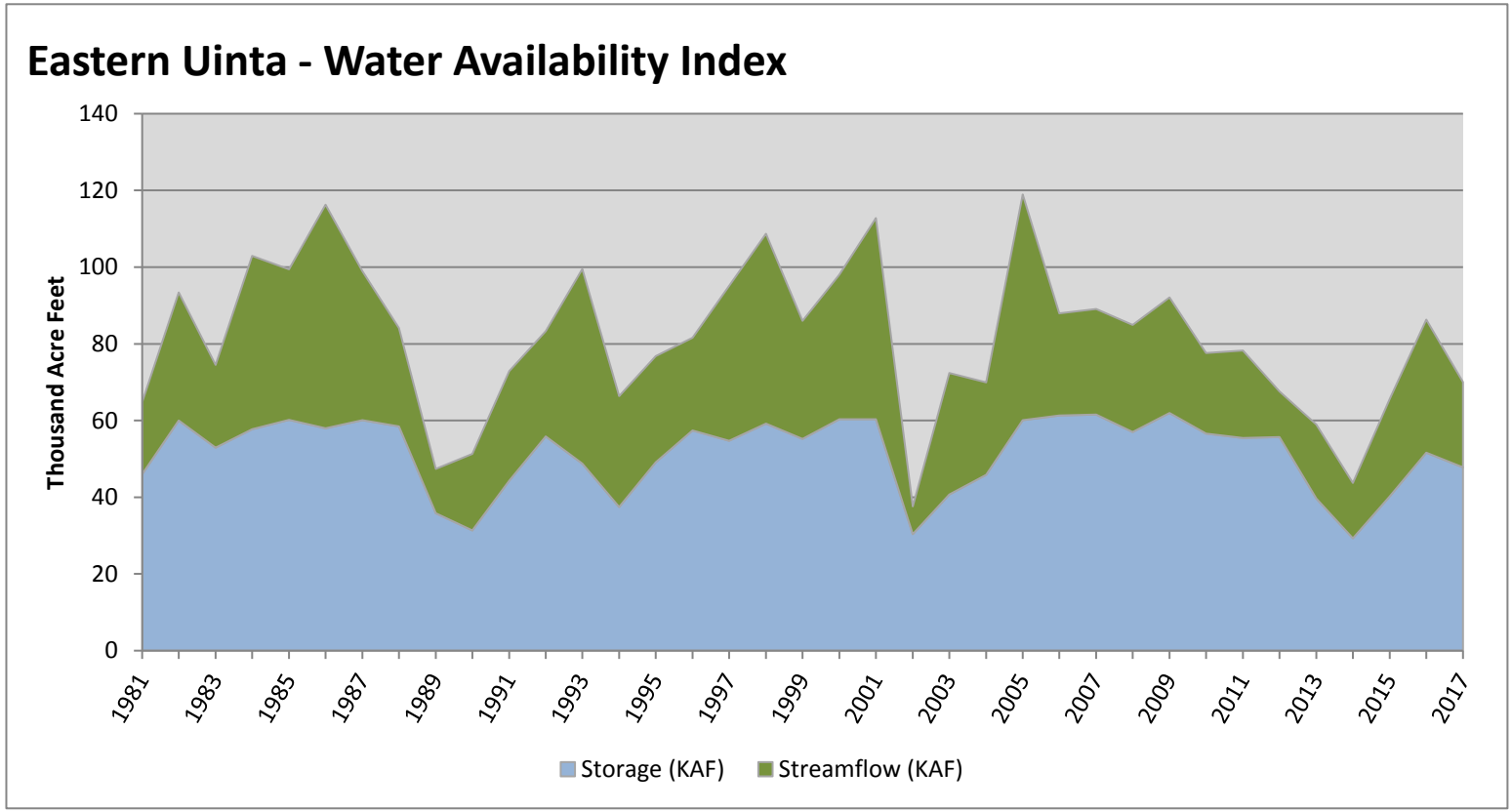

SNOTEL Data

June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Eastern Uinta** | **47.80** | **22.24** | **70.04** | **29** | **-1.75** | **12, 04, 03, 91** |

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

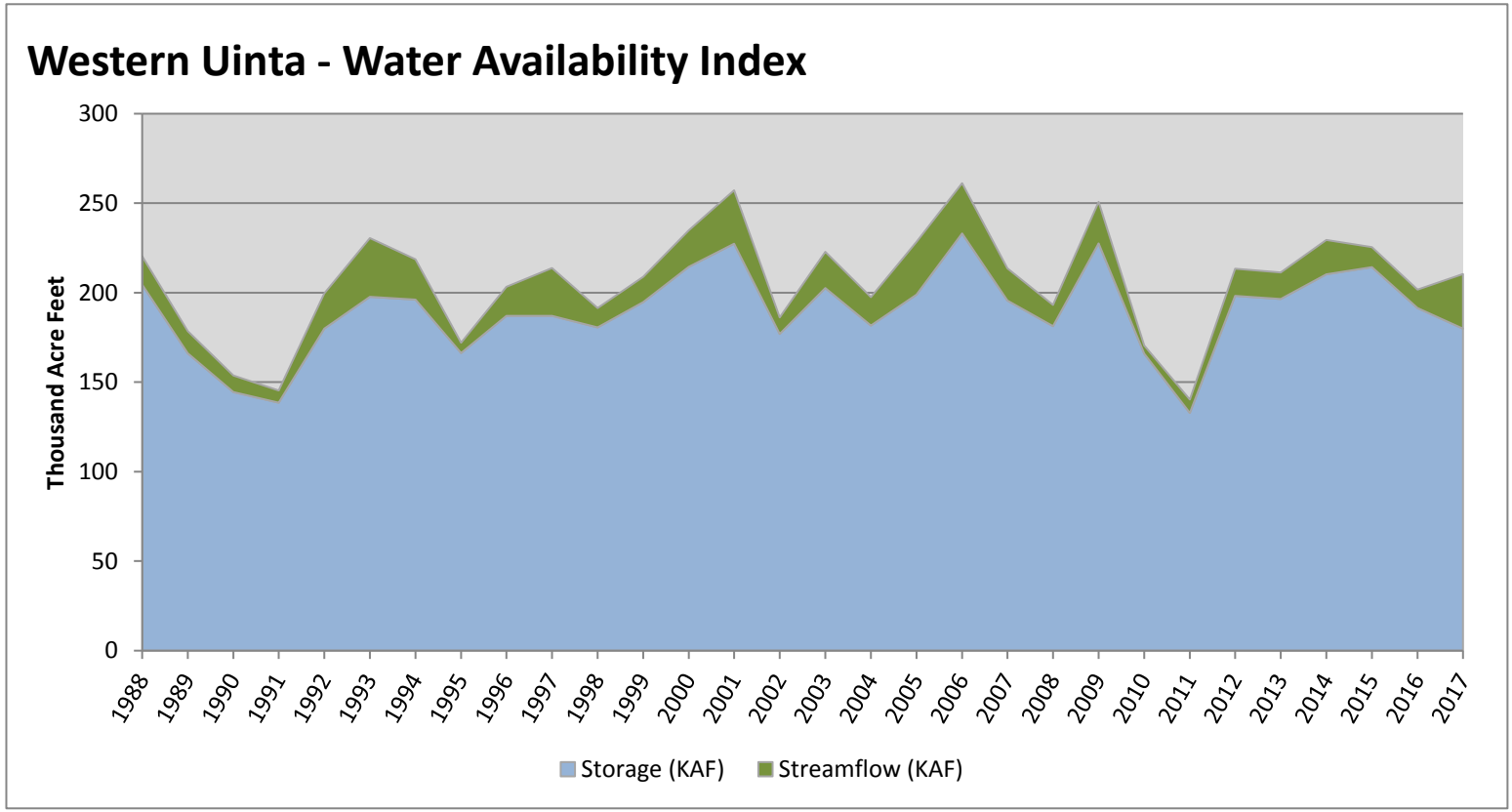


June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Western Uinta** | **179.96** | **30.45** | **210.41** | **48** | **-0.13** | **96, 99, 13, 12** |

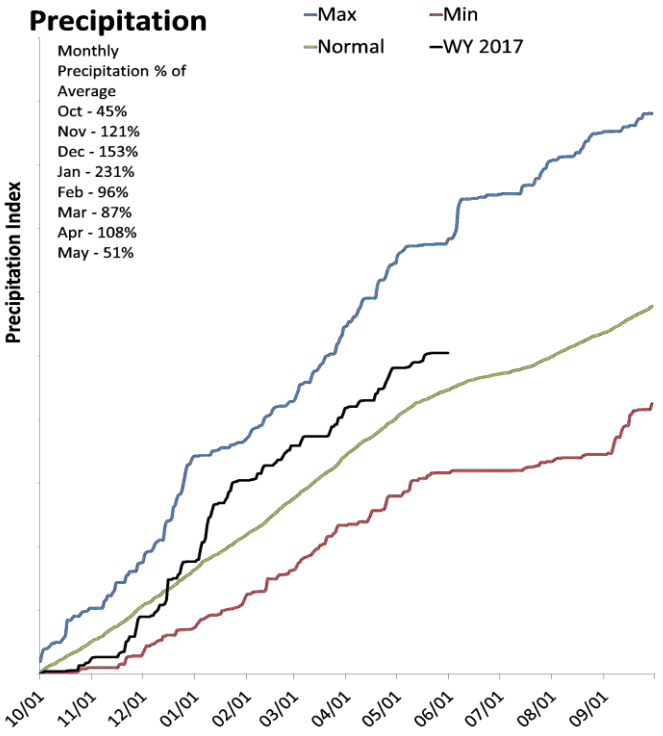
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

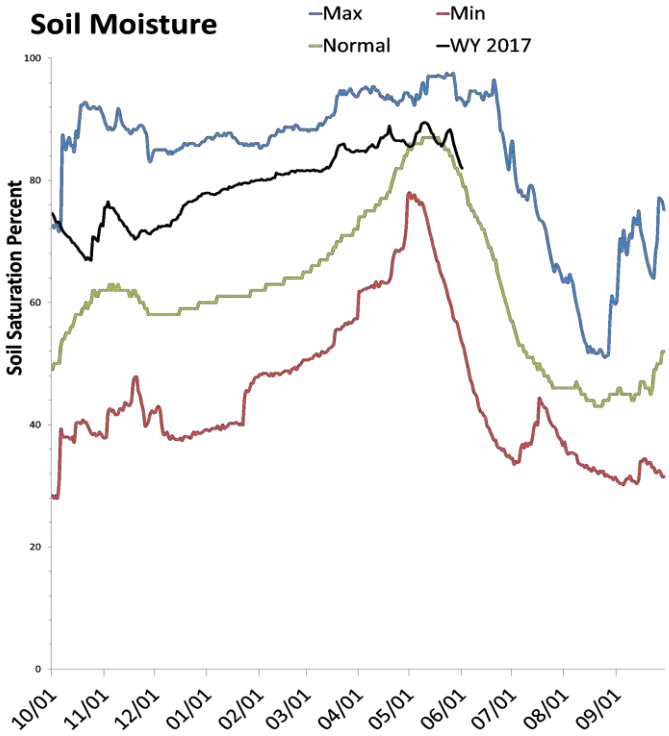


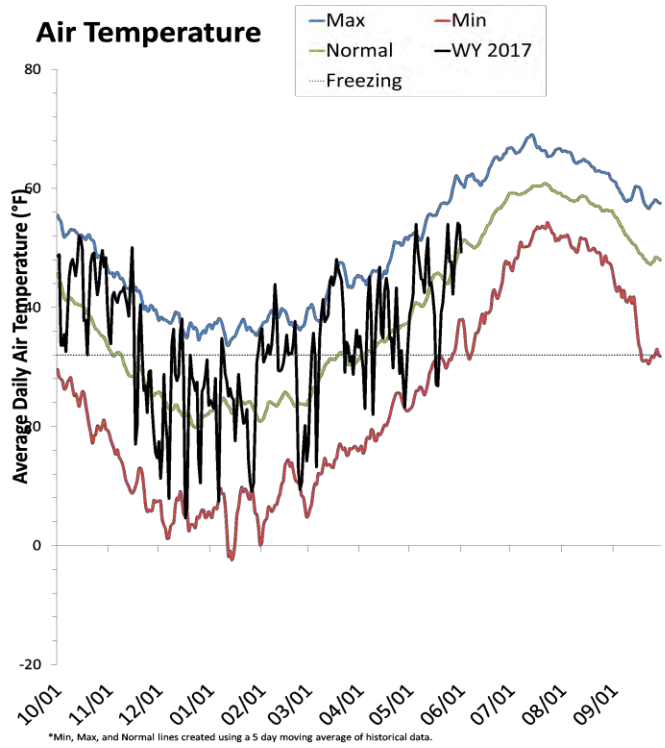
# San Pitch River Basin

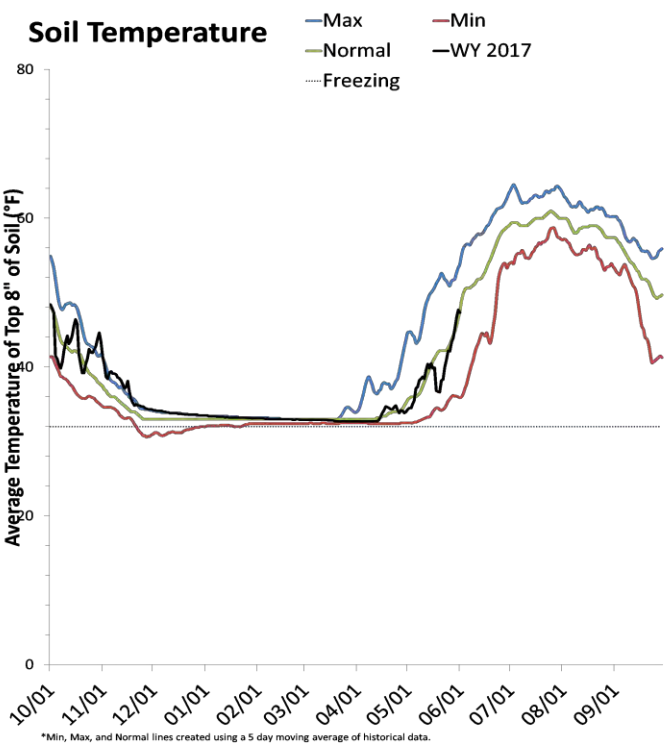
June 1, 2017

Precipitation in May was much below average at 51%, which brings the seasonal accumulation (Oct-May) to 113% of average. Soil Moisture is at 82% compared to 83% last year. Reservoir storage is at 45% of capacity, compared to 6% last year.The water availability index for the San Pitch is 37%.



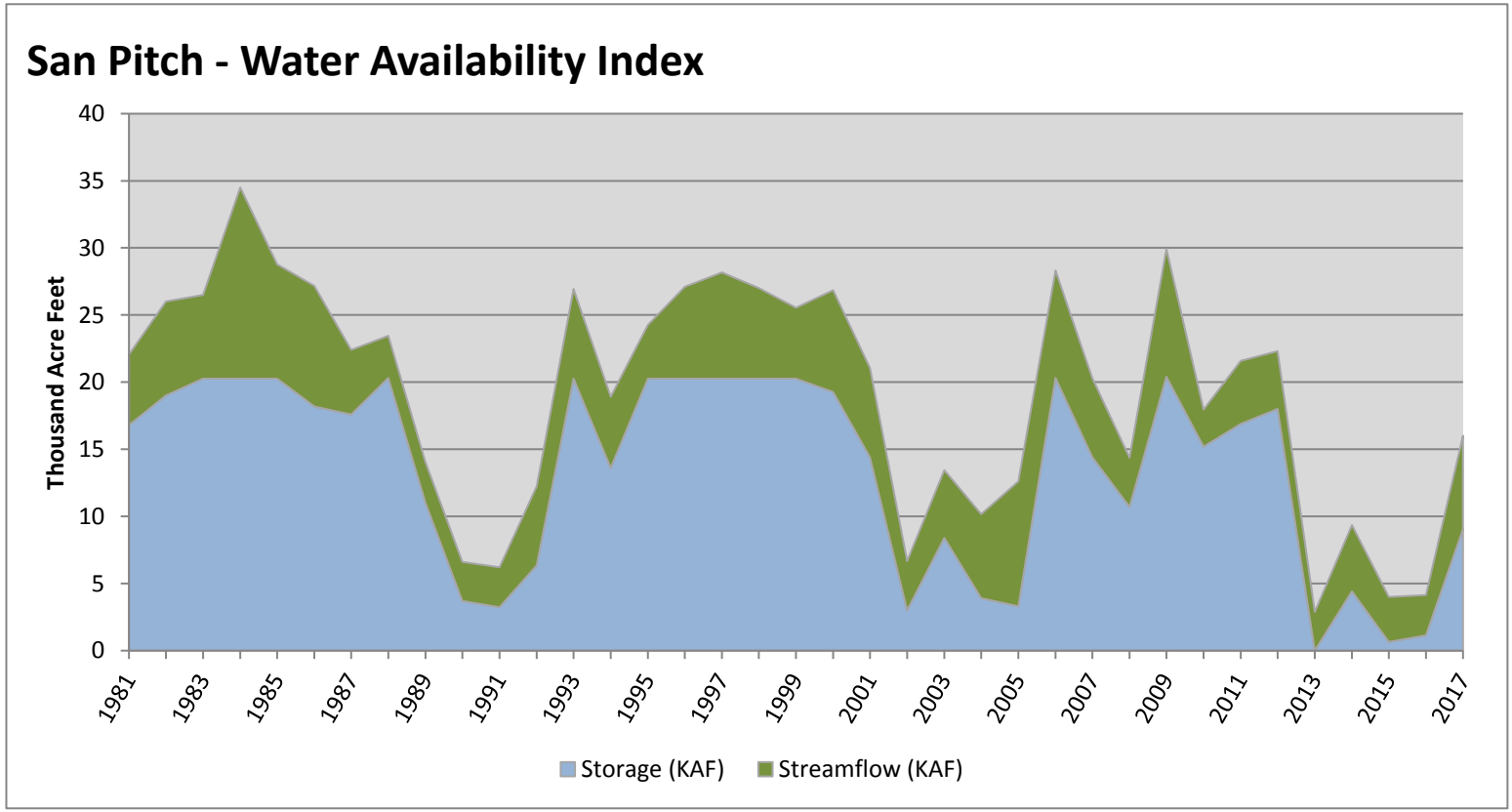



June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **San Pitch** | **9.04** | **6.96** | **16.00** | **37** | **-1.1** | **89, 08, 10, 94** |

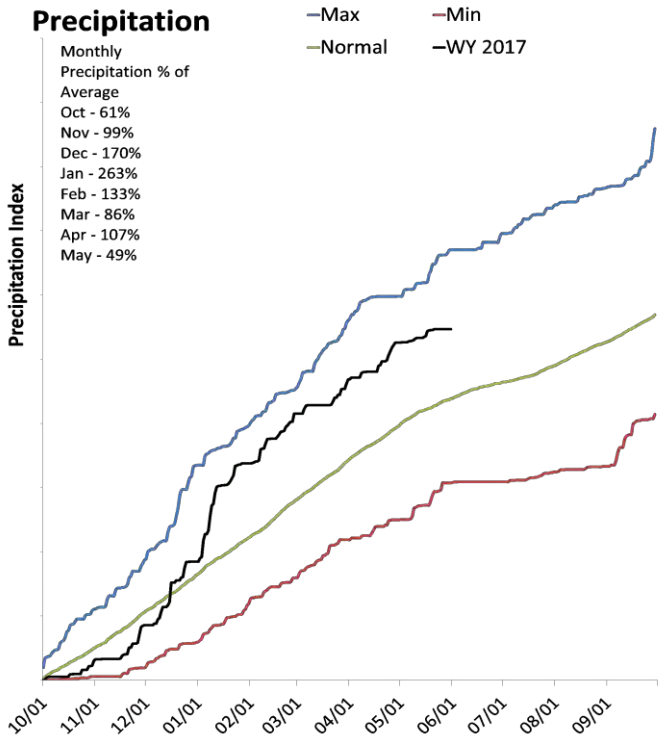
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

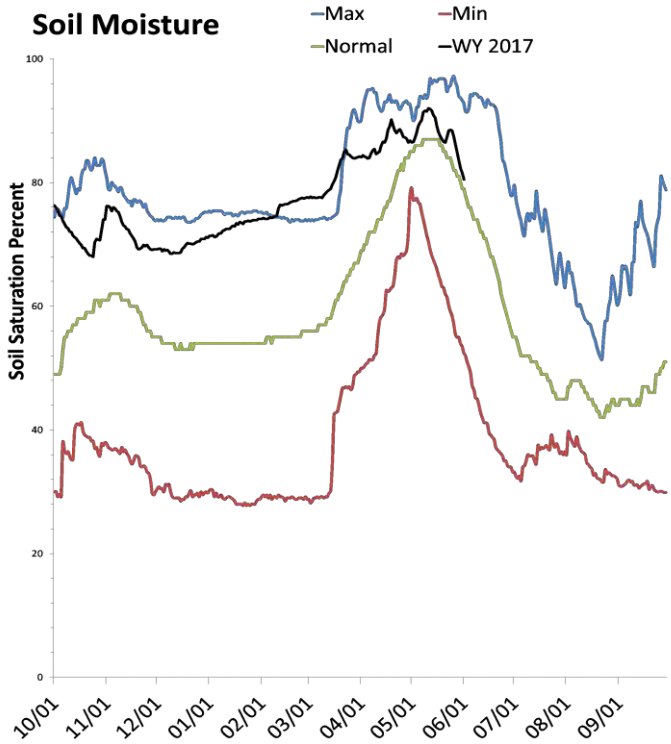


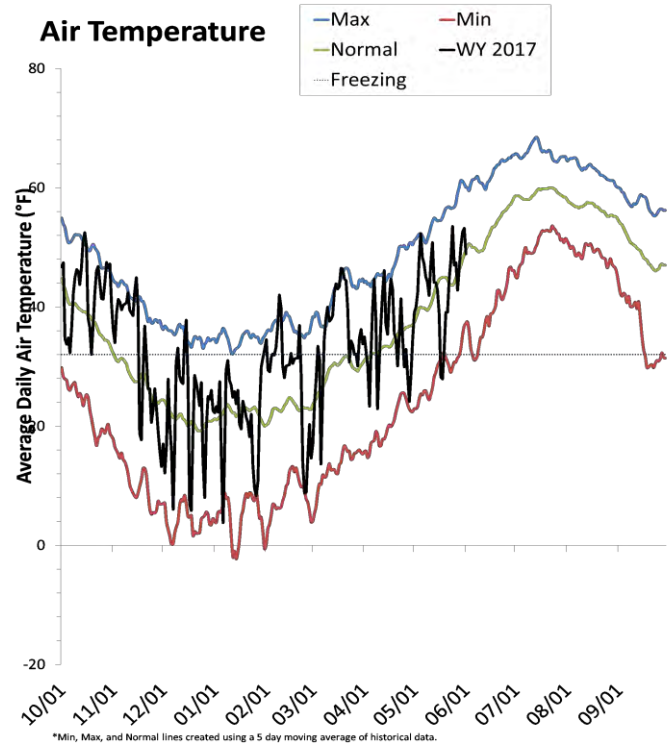
# Price & San Rafael Basins

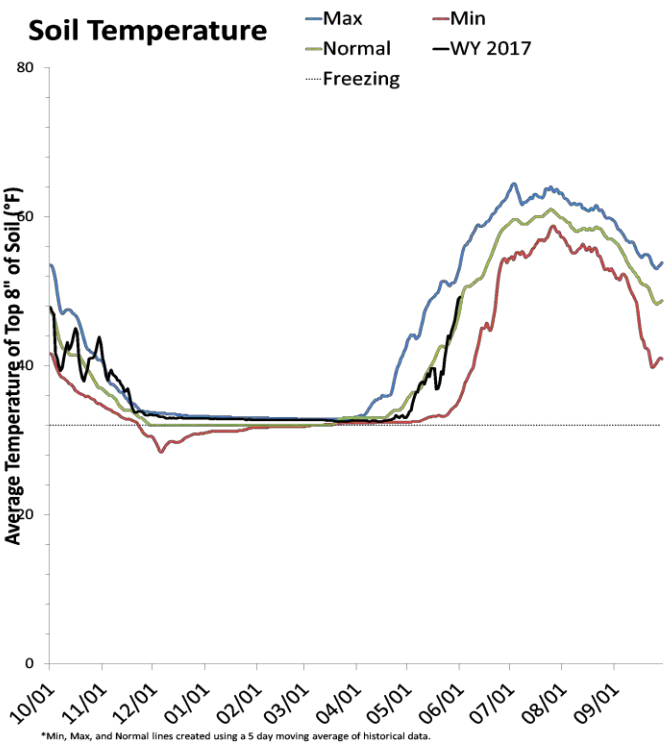
June 1, 2017

Precipitation in May was much below average at 49%, which brings the seasonal accumulation (Oct-May) to 125% of average. Soil moisture is at 81% compared to 81% last year. Reservoir storage is at 91% of capacity, compared to 56% last year. The water availability index for the Price River is 82%, and 76% for Joe's Valley.



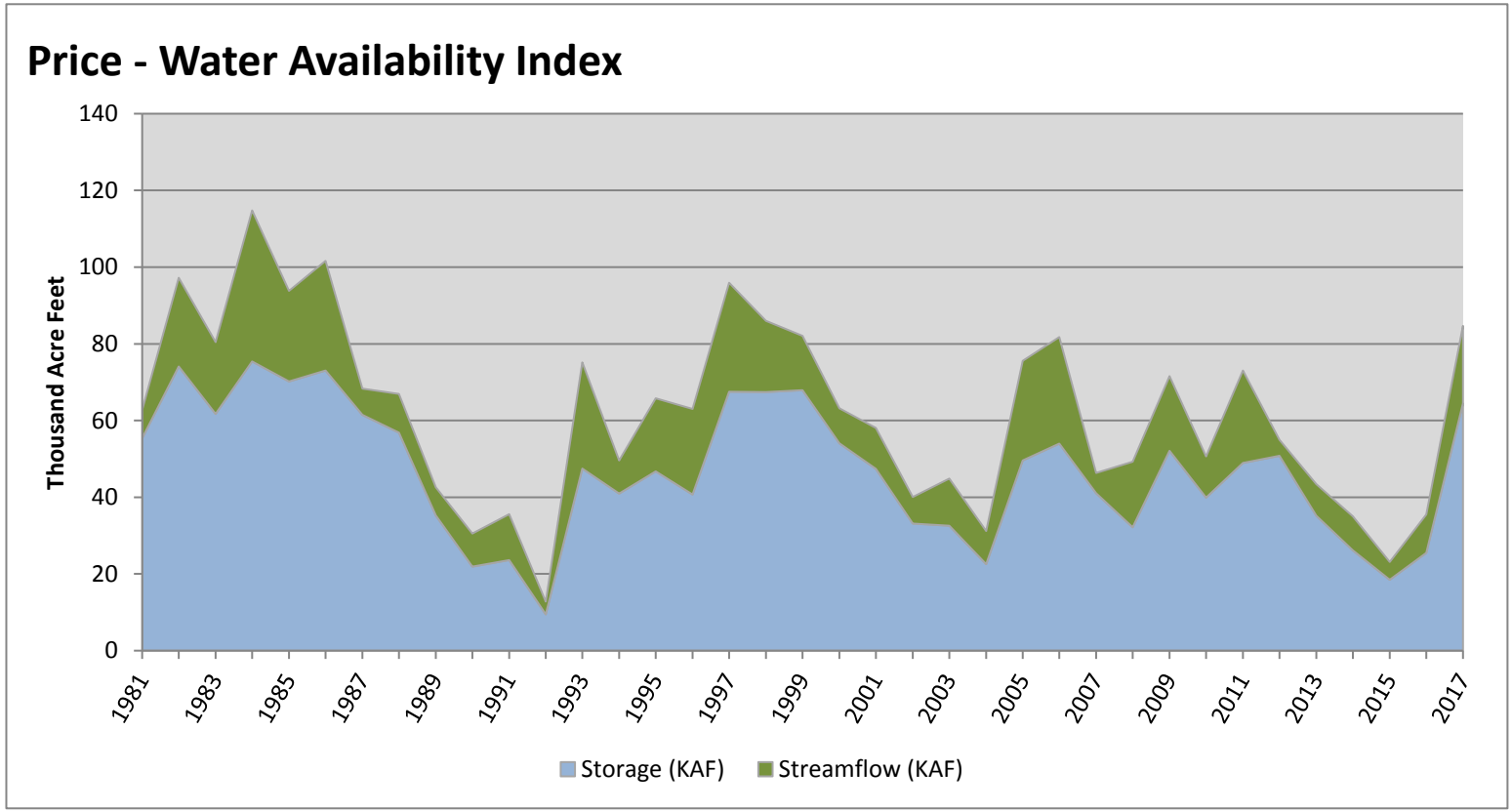

SNOTEL Data

June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Price** | **64.49** | **20.18** | **84.67** | **82** | **2.63** | **06, 99, 98, 85** |

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

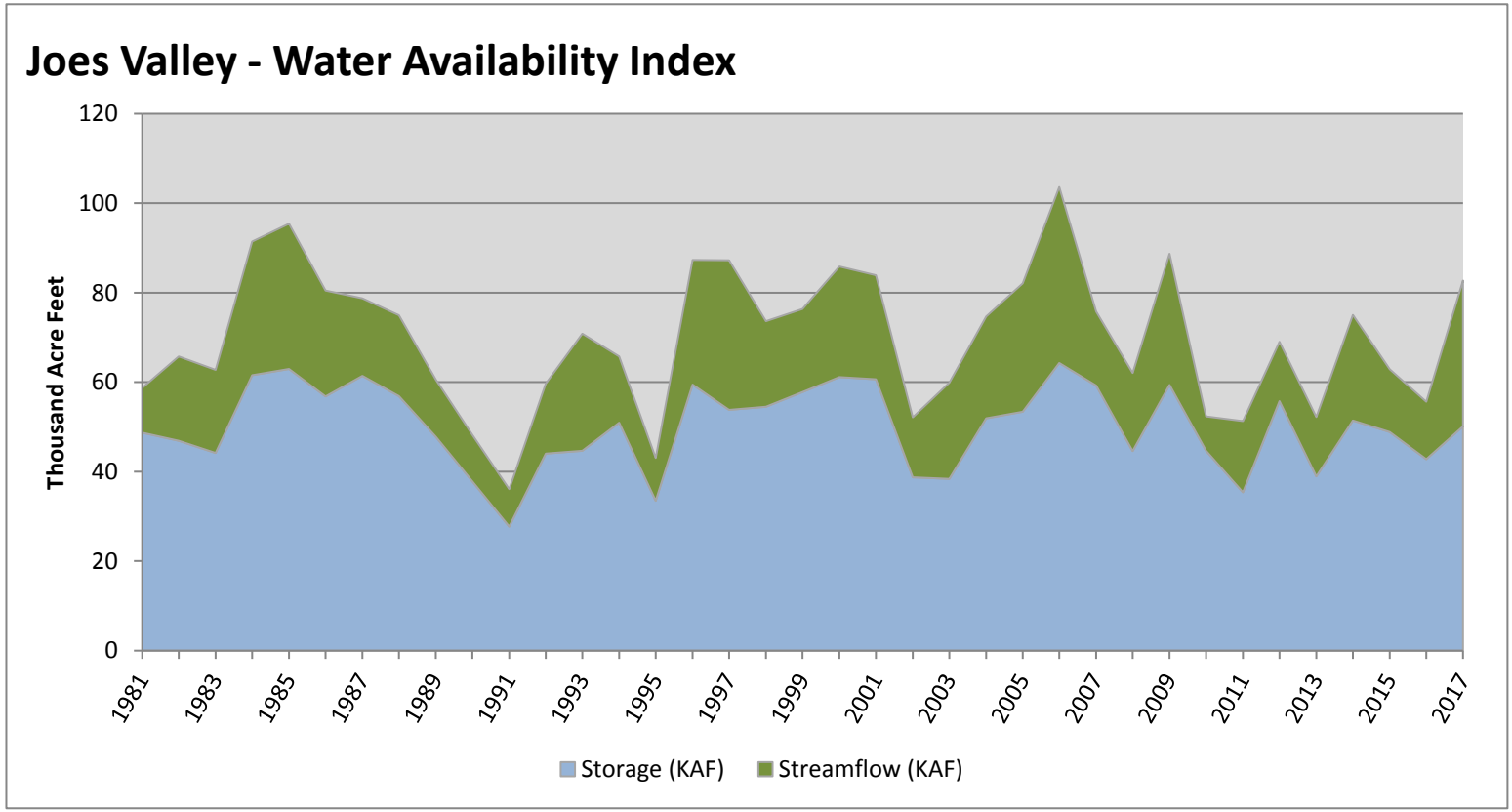


June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Joes Valley** | **50.13** | **32.60** | **82.73** | **76** | **2.19** | **86, 05, 01, 00** |

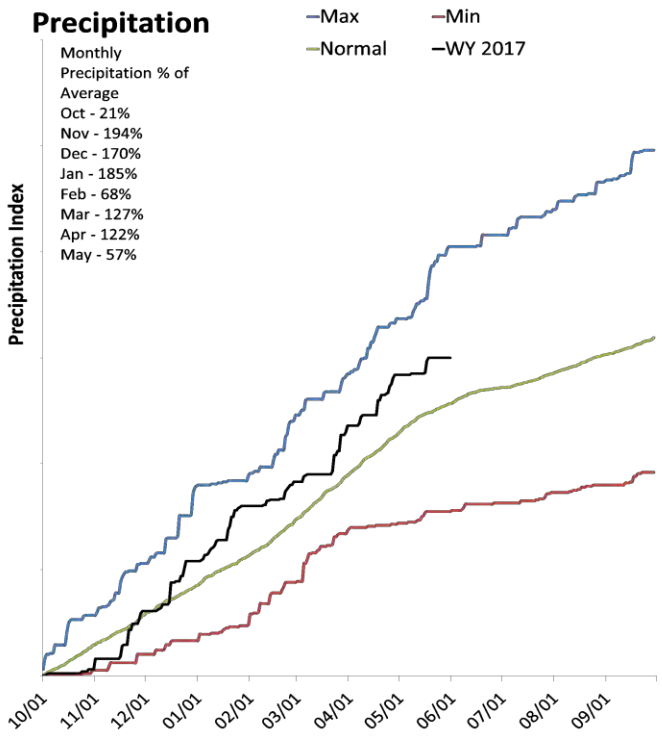
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

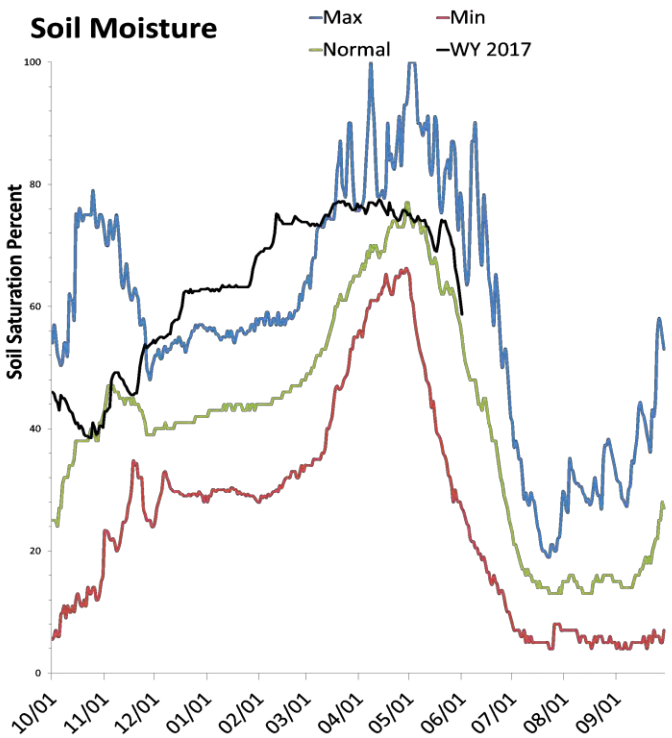


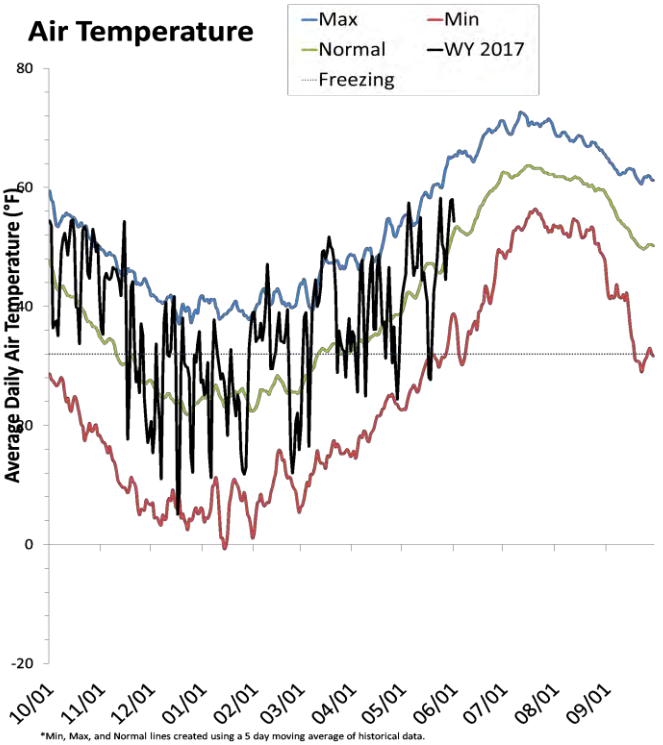
# Lower Sevier Basin

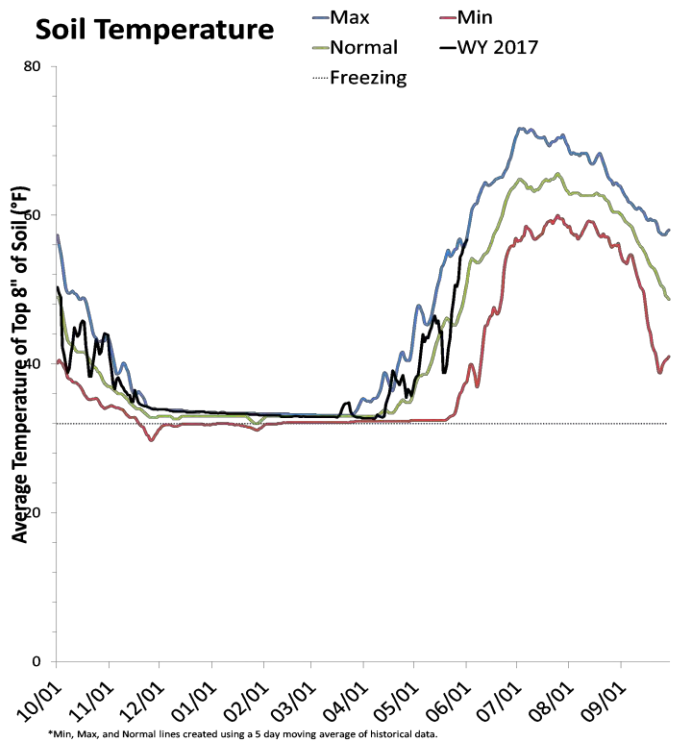
June 1, 2017

Precipitation in May was much below average at 55%, which brings the seasonal accumulation (Oct-May) to 117% of average. Soil moisture is at 60% compared to 54% last year. Reservoir storage is at 28% of capacity, compared to 29% last year. The water availability index for the Lower Sevier is 5%.



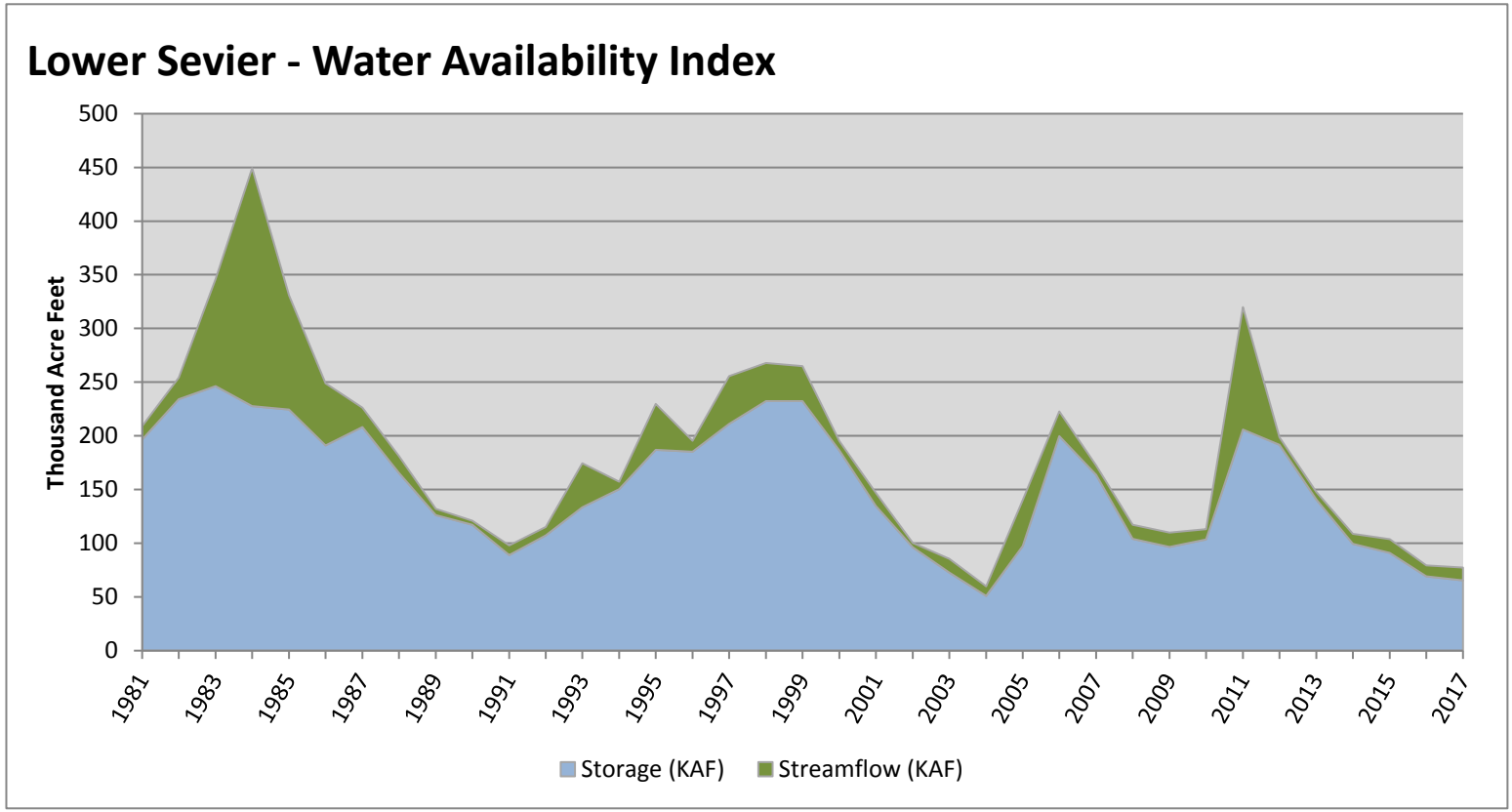

SNOTEL Data

June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Lower Sevier** | **65.57** | **11.82** | **77.39** | **5** | **-3.73** | **04, 16, 03, 91** |

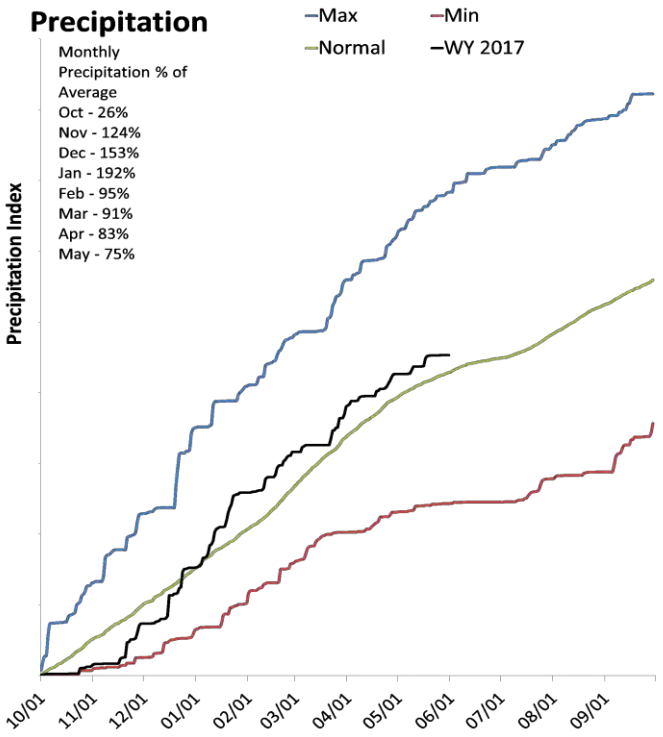
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

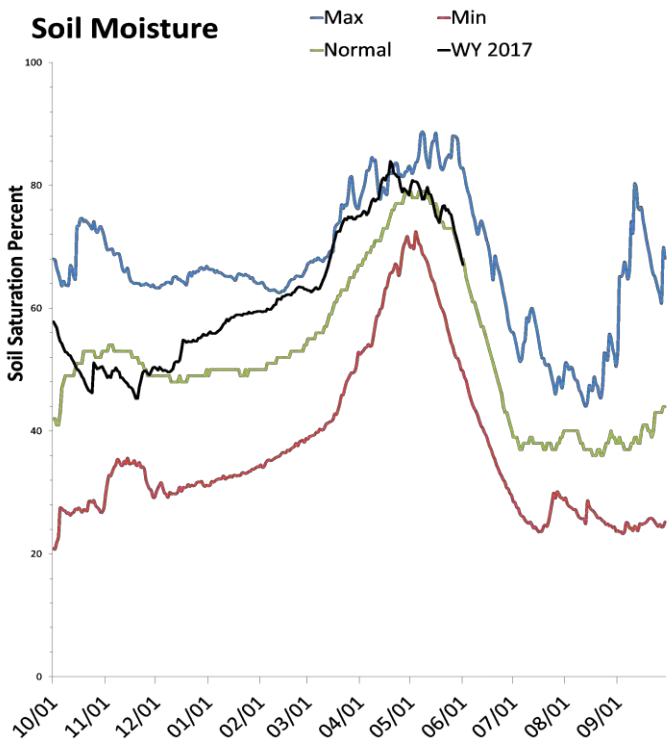


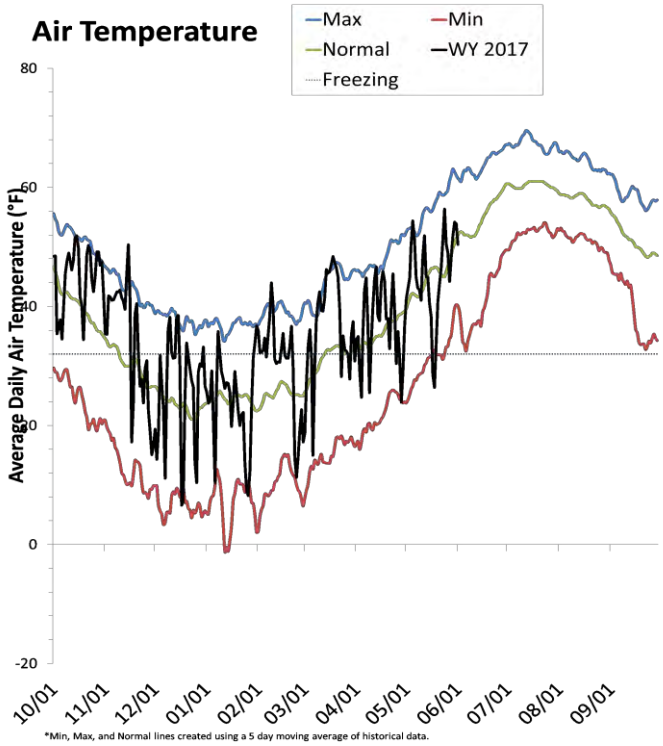
# Upper Sevier Basin

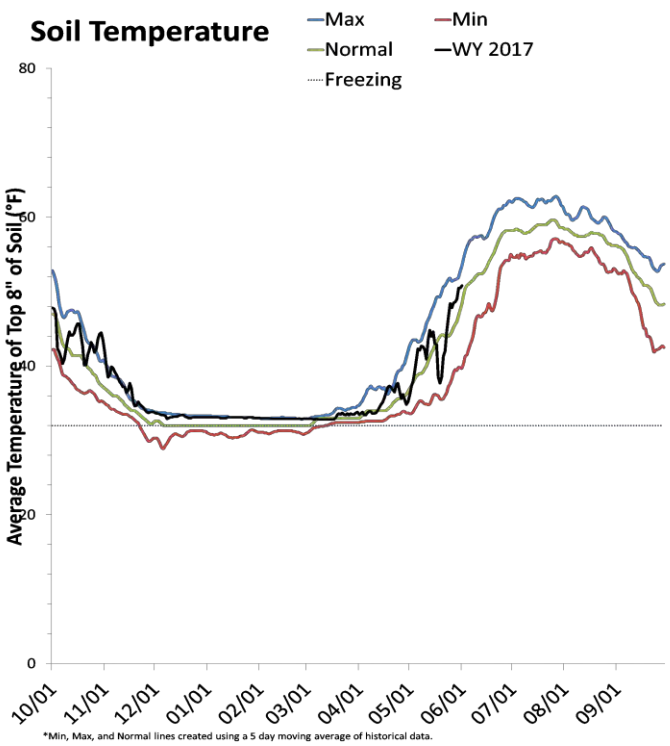
June 1, 2017

Precipitation in May was below average at 76%, which brings the seasonal accumulation (Oct-May) to 105% of average. Soil moisture is at 67% compared to 69% last year. Reservoir storage is at 73% of capacity, compared to 64% last year. The water availability index for the Upper Sevier is 53%.



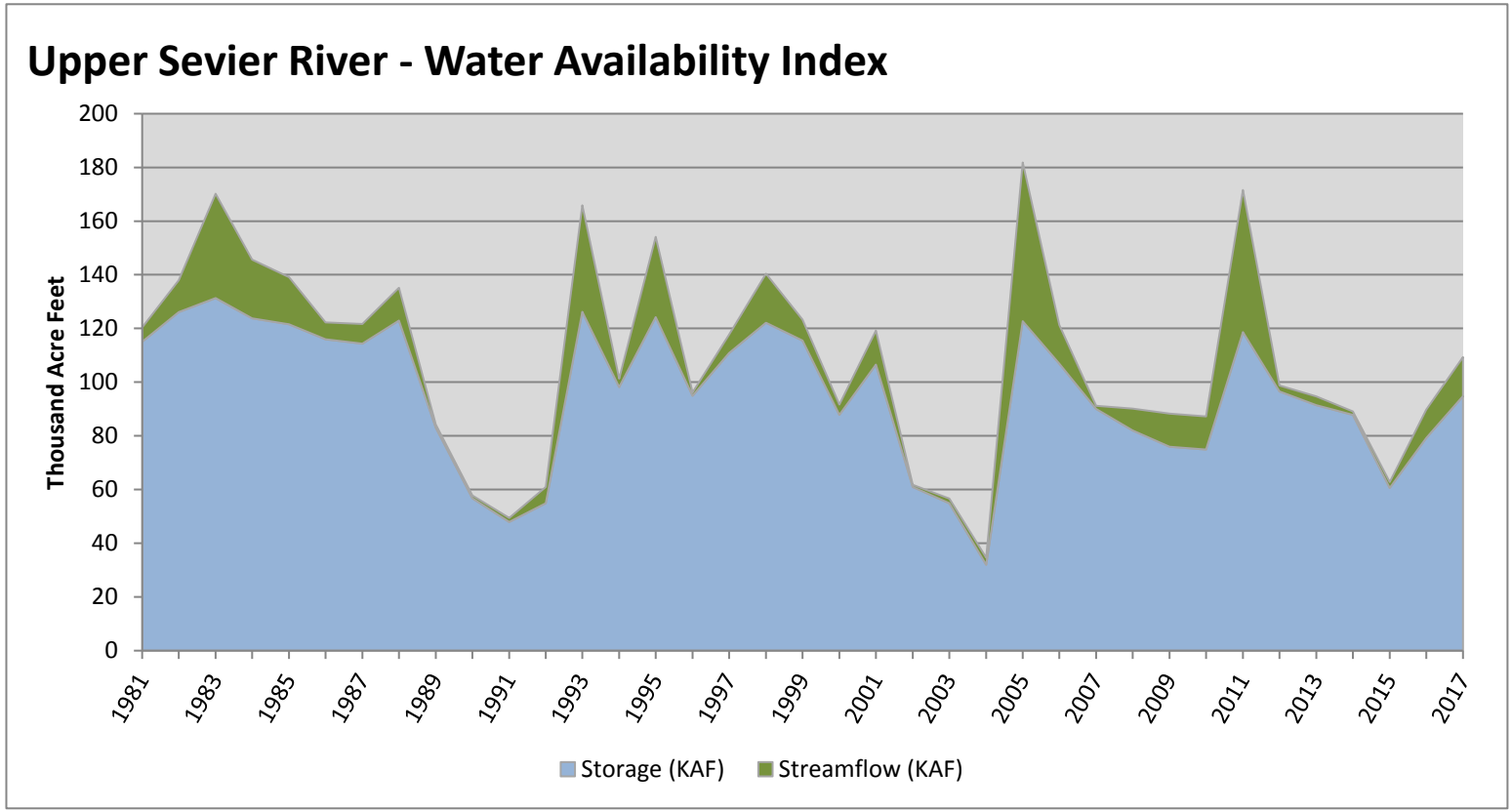



June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Upper Sevier River** | **94.78** | **14.62** | **109.40** | **53** | **0.22** | **12, 94, 97, 01** |

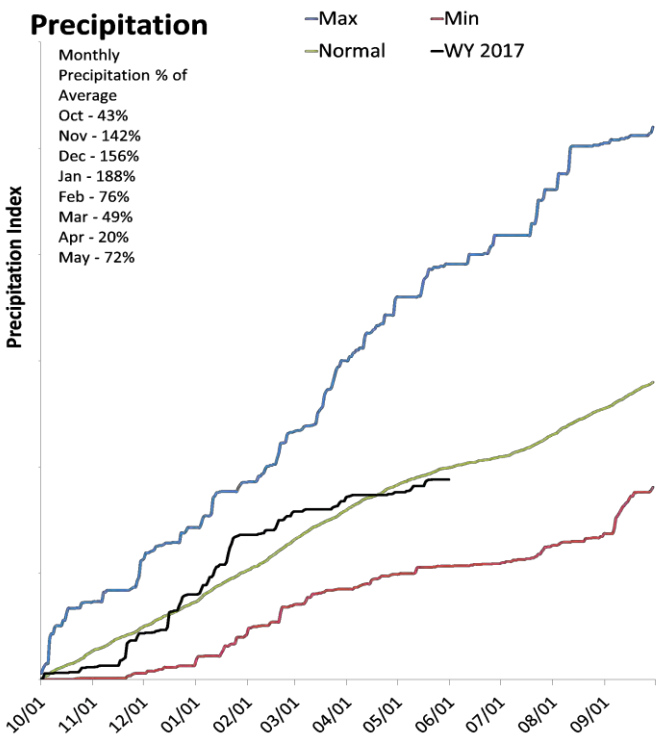
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

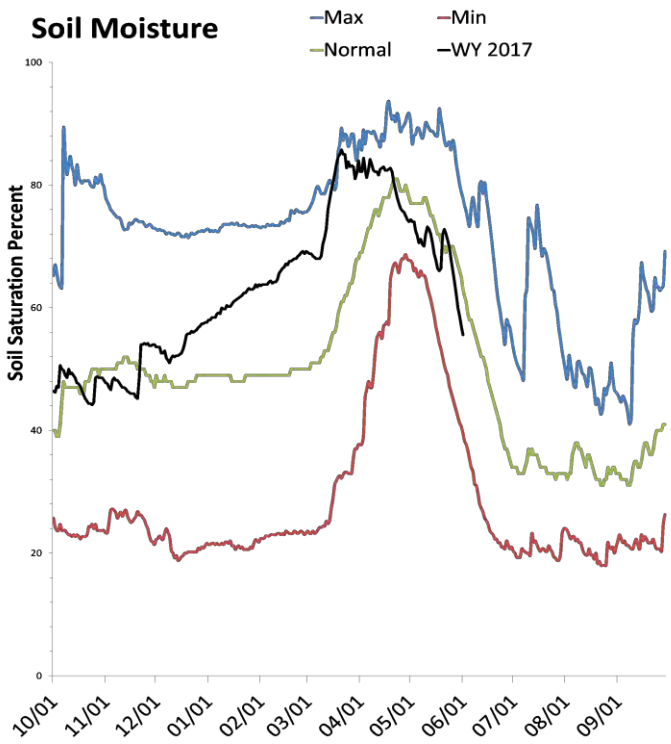


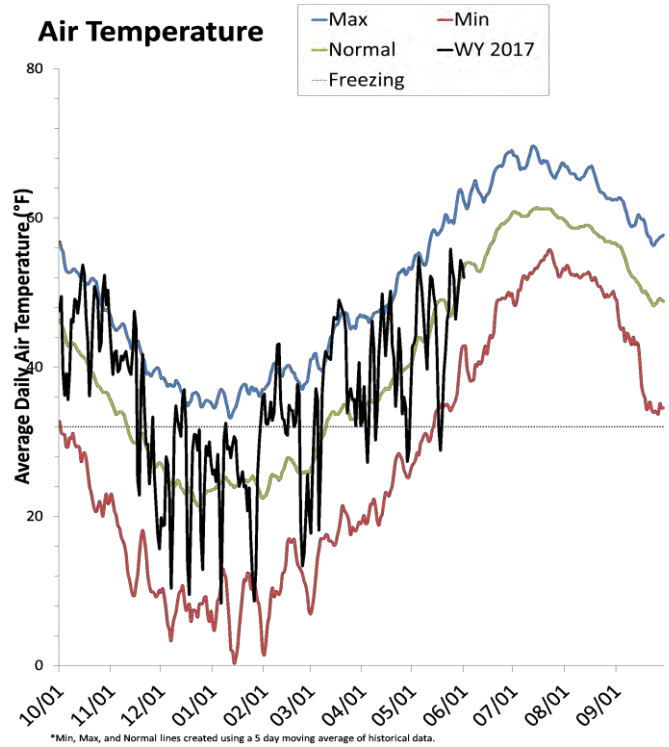
# Southeastern Utah

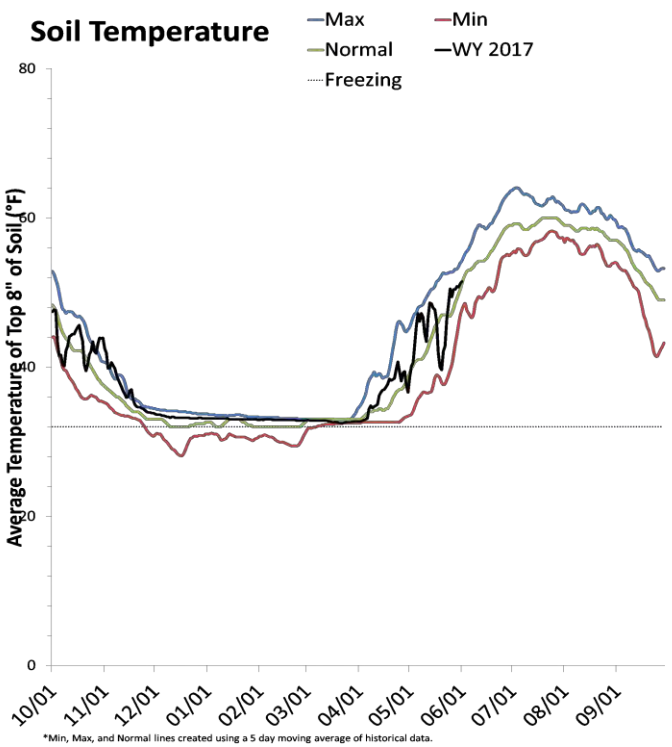
June 1, 2017

Precipitation in May was below average at 72%, which brings the seasonal accumulation (Oct-May) to 94% of average. Soil moisture is at 56% compared to 78% last year. Reservoir storage is at 106% of capacity, compared to 102% last year. The water availability index for Moab is 65%.



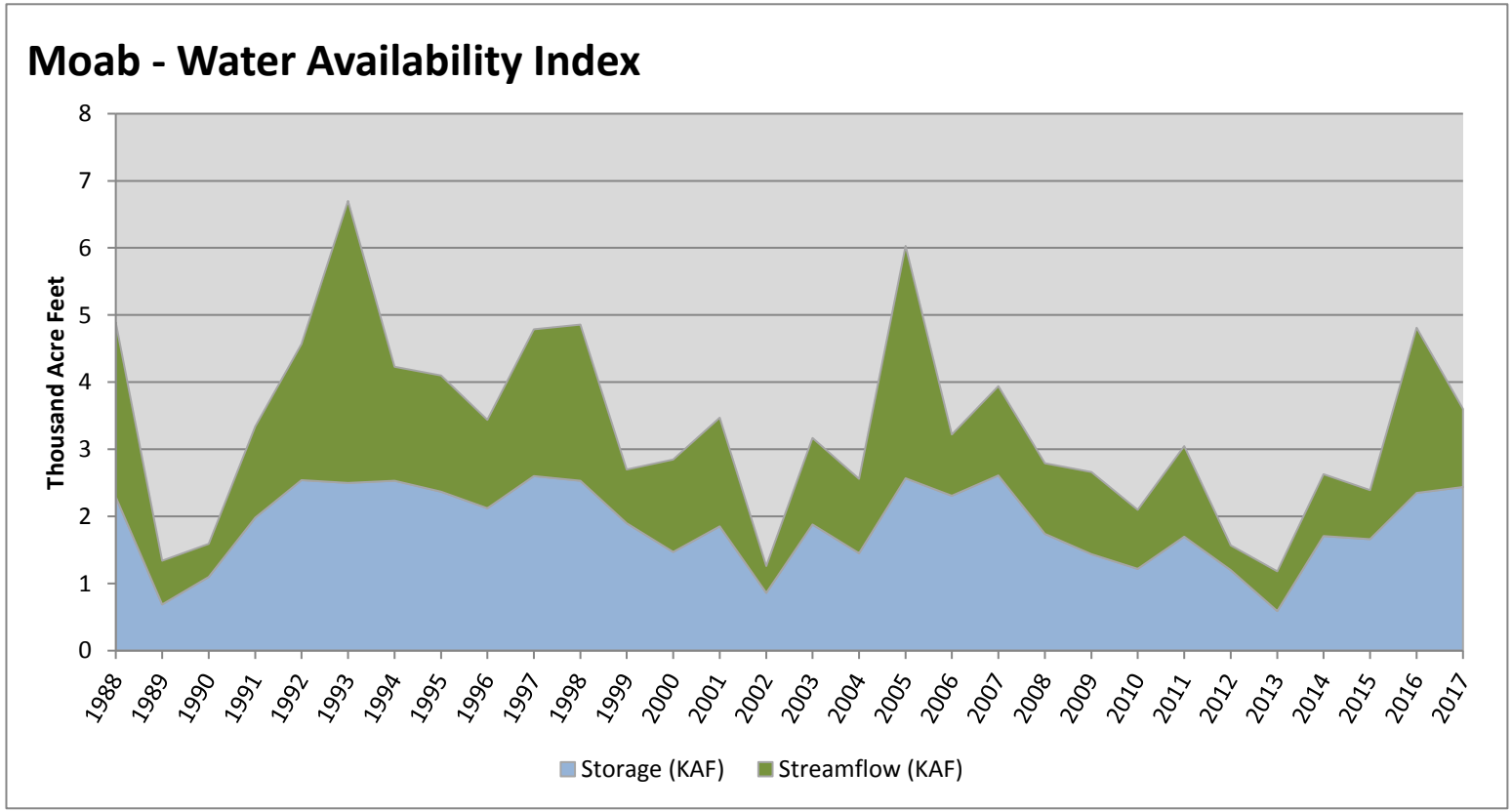

SNOTEL Data

June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Moab** | **2.44** | **1.16** | **3.60** | **65** | **1.21** | **96, 01, 07, 95** |

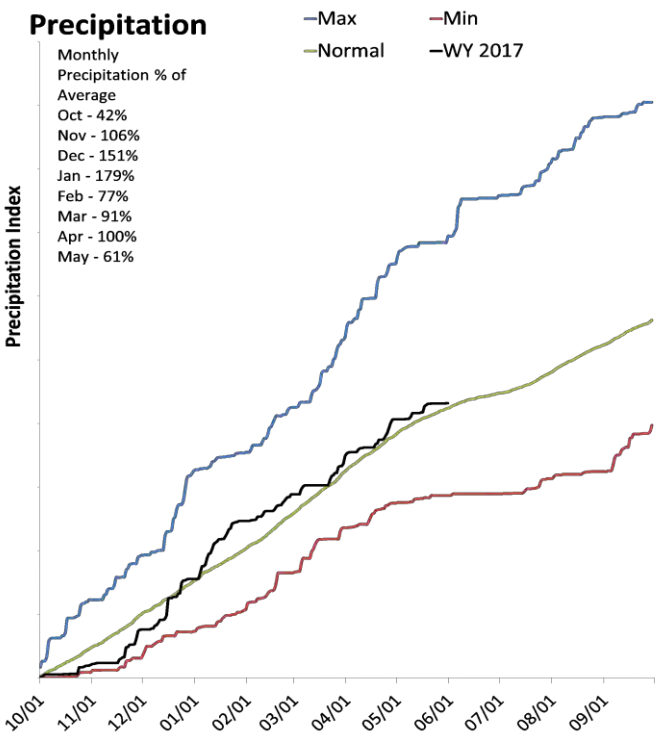
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

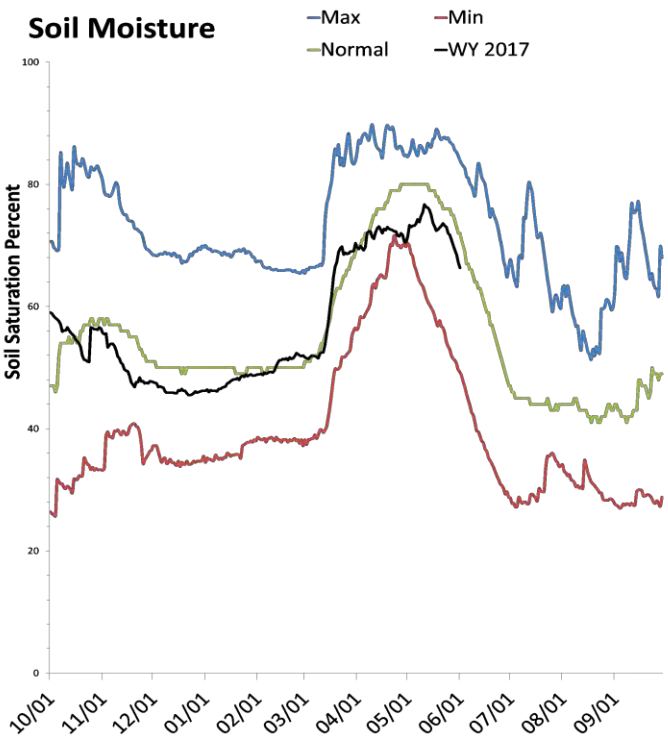


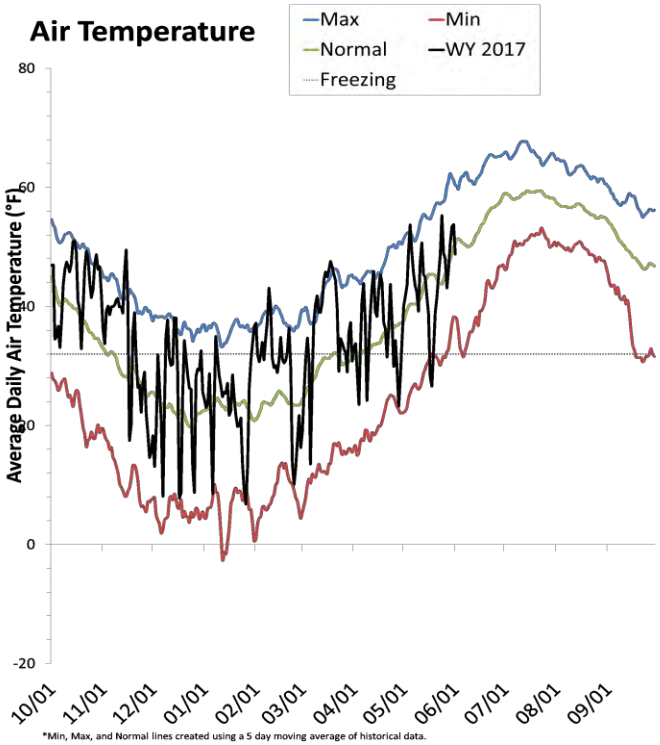
# Dirty Devil Basin

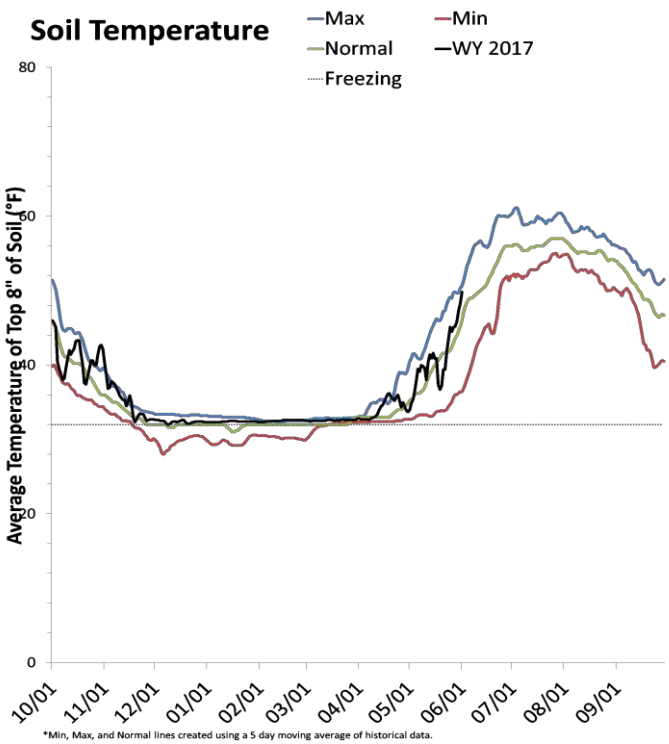
June 1, 2017

Precipitation in May was much below average at 69%, which brings the seasonal accumulation (Oct-May) to 113% of average. Soil moisture is at 67% compared to 65% last year.



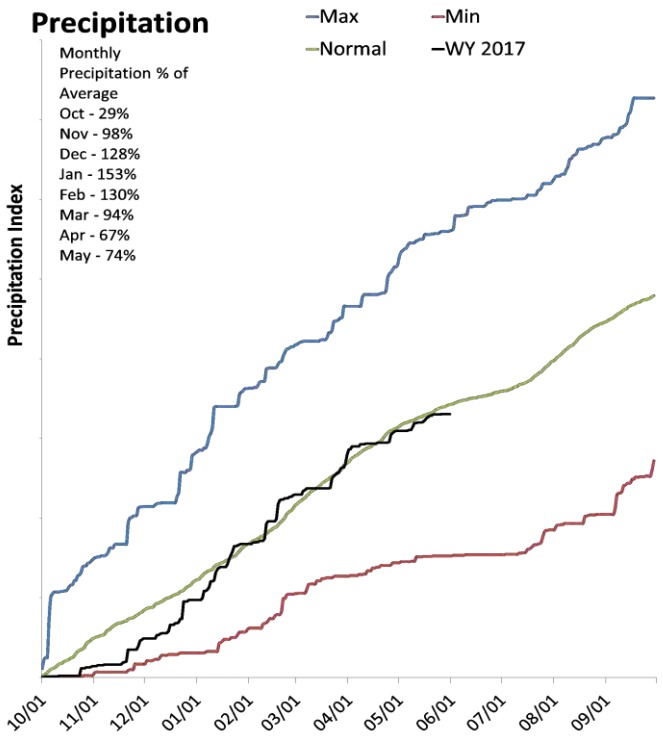



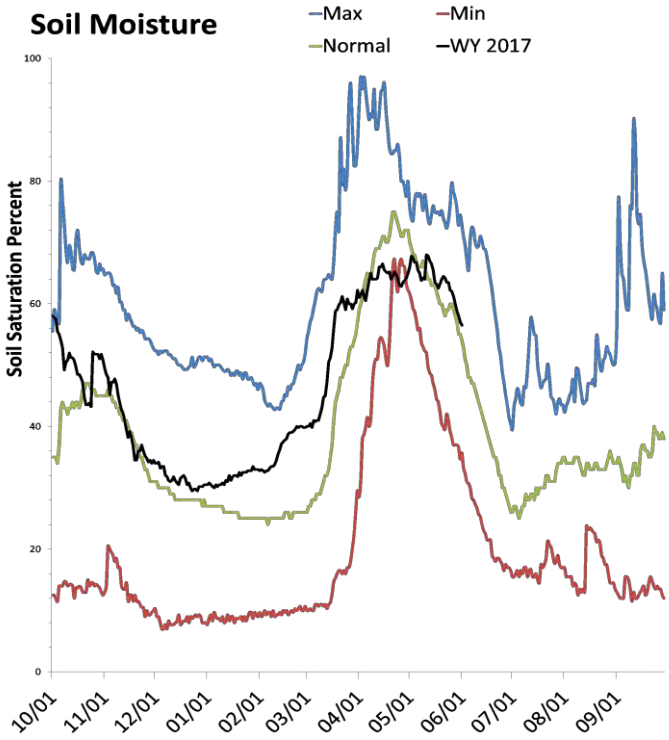



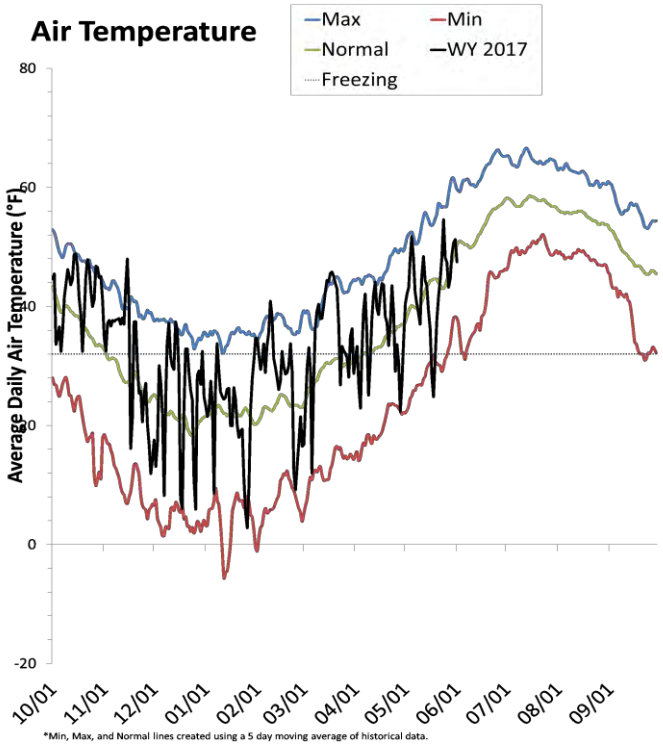
# Escalante River Basin

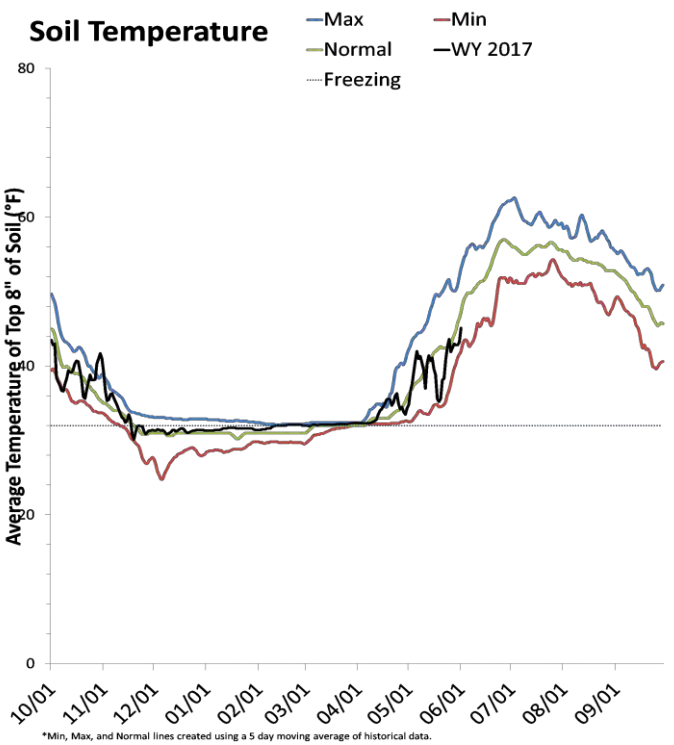
June 1, 2017

Precipitation in May was below average at 74%, which brings the seasonal accumulation (Oct-May) to 97% of average. Soil moisture is at 57% compared to 61% last year.



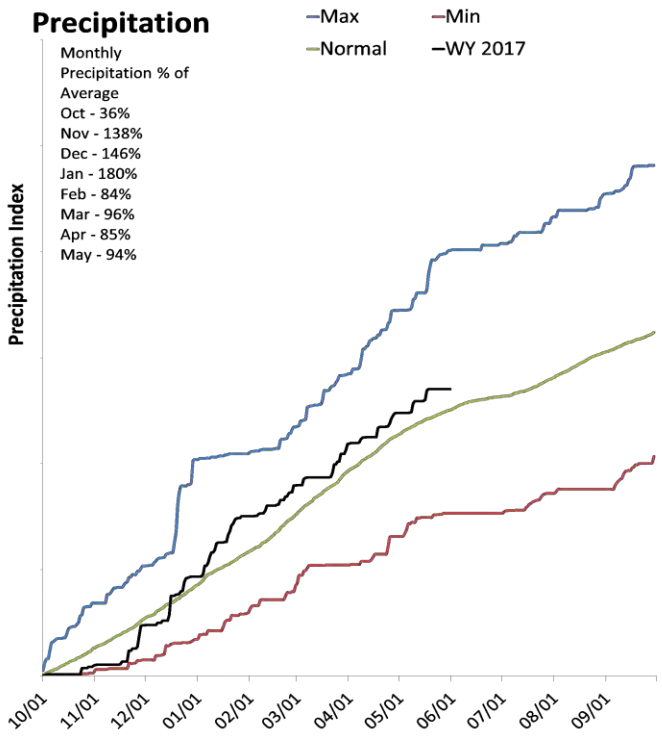



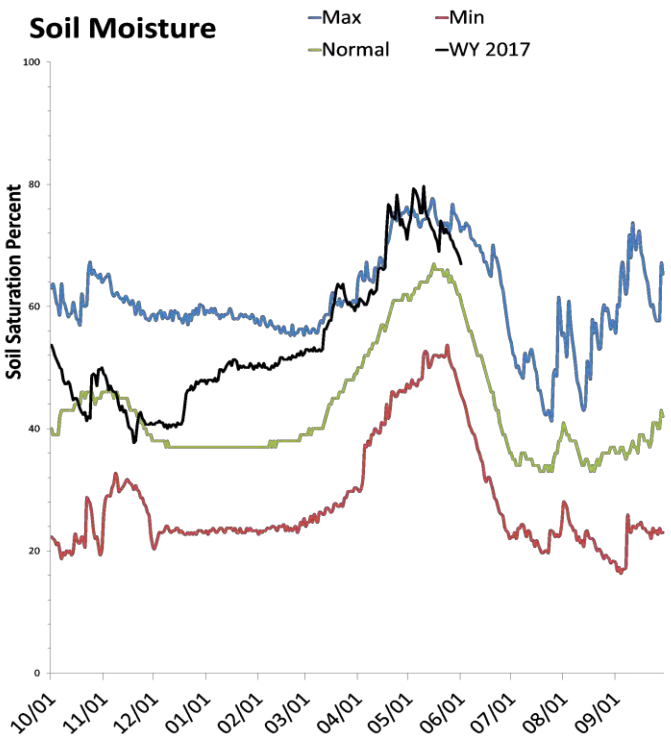

SNOTEL Data

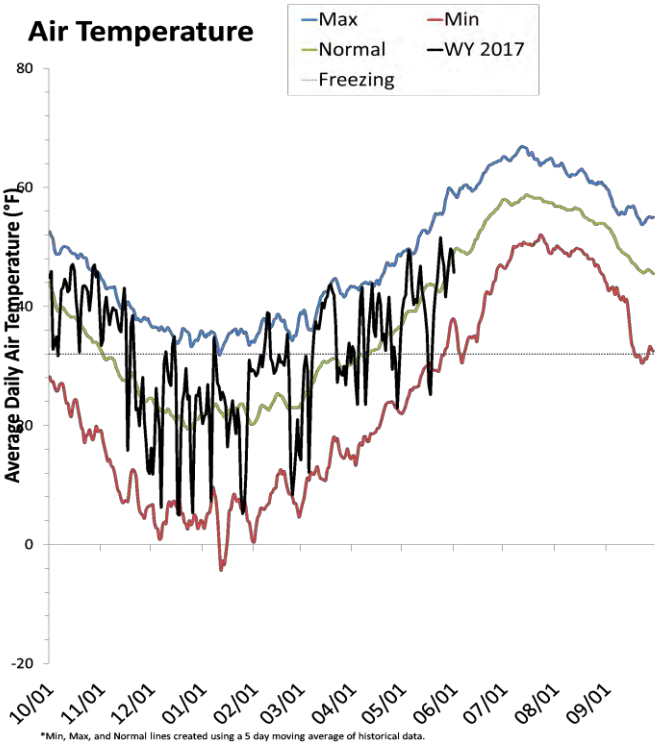
# Beaver River Basin

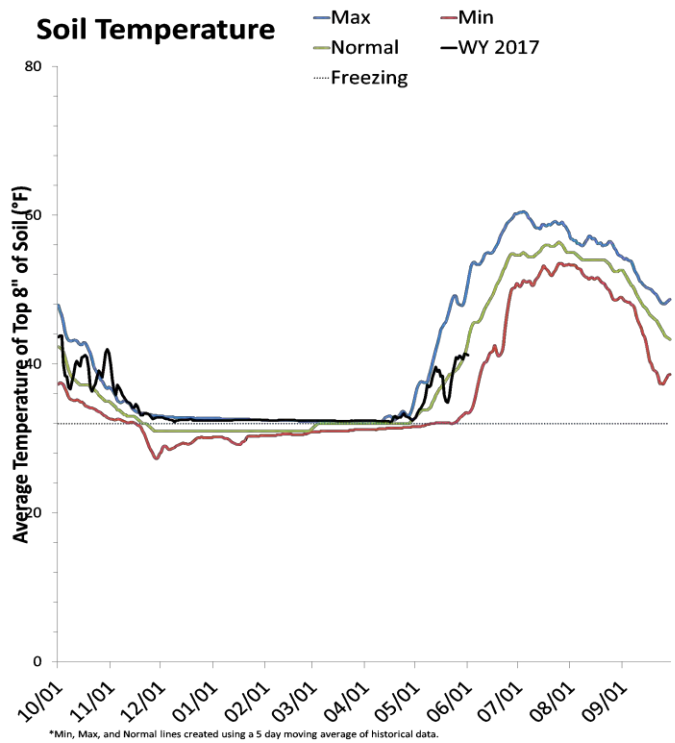
June 1, 2017

Precipitation in May was near average at 94%, which brings the seasonal accumulation (Oct-May) to 108% of average. Soil moisture is at 67% compared to 58% last year. Reservoir storage is at 68% of capacity, compared to 43% last year. The water availability index for the Beaver River is 63%.



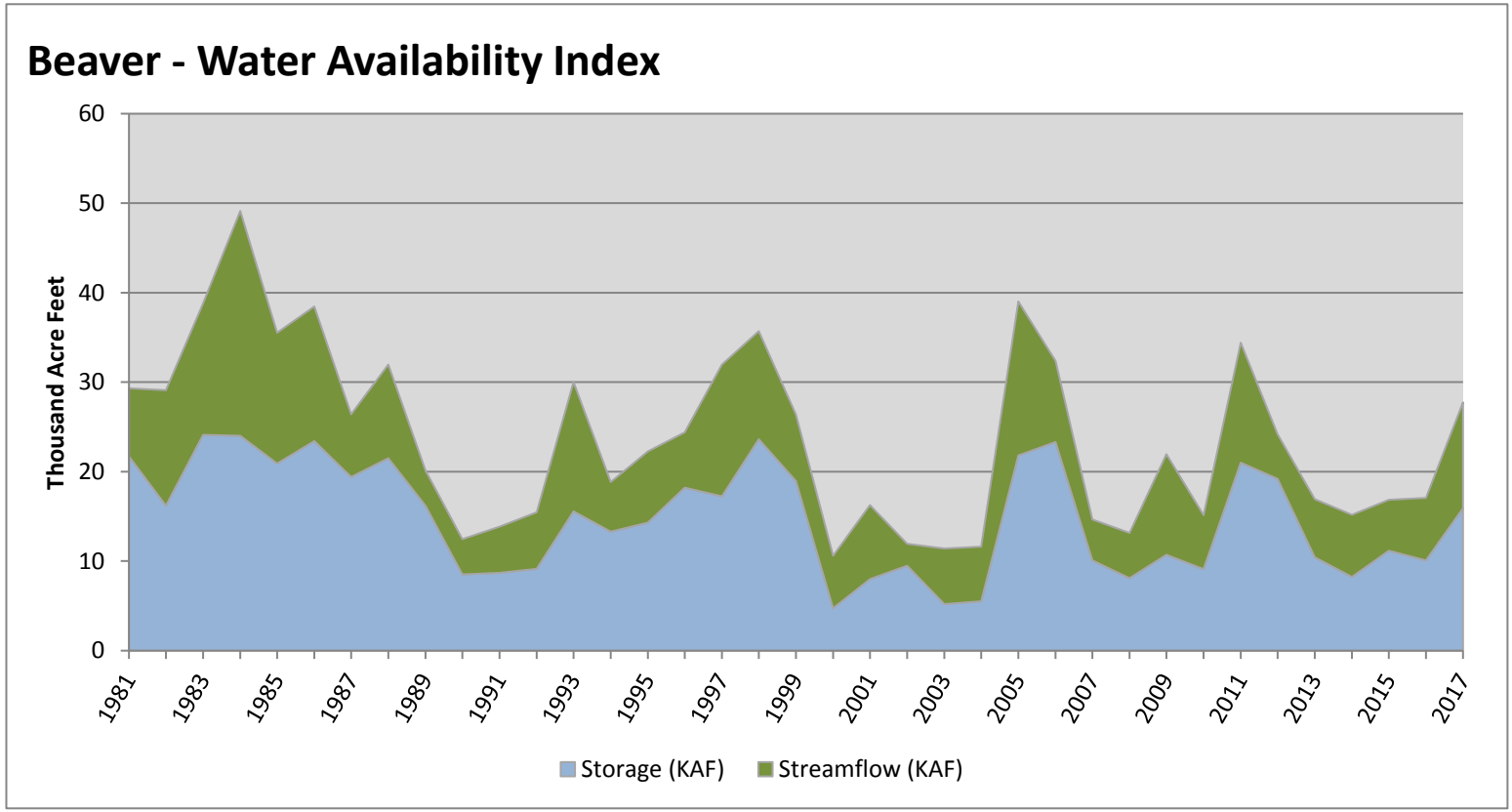



June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Beaver** | **15.93** | **11.81** | **27.74** | **63** | **1.1** | **99, 87, 82, 81** |

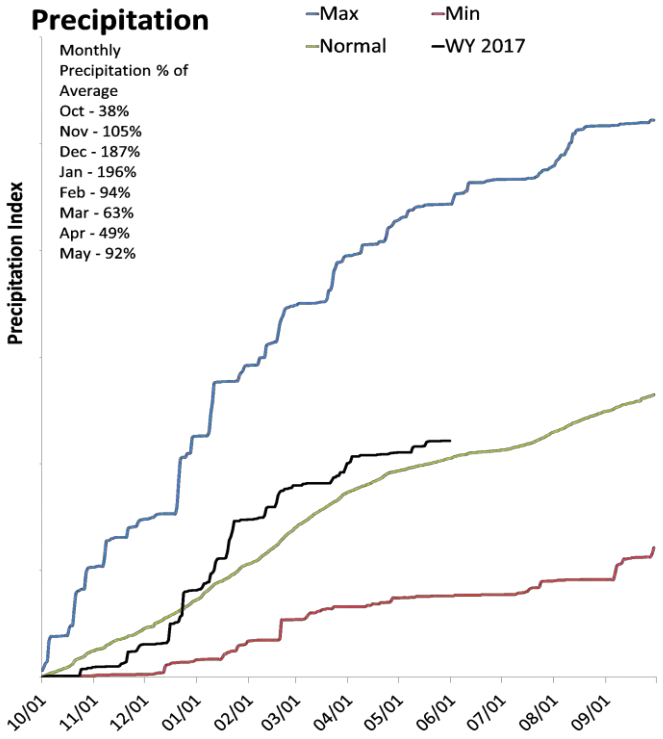
*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.

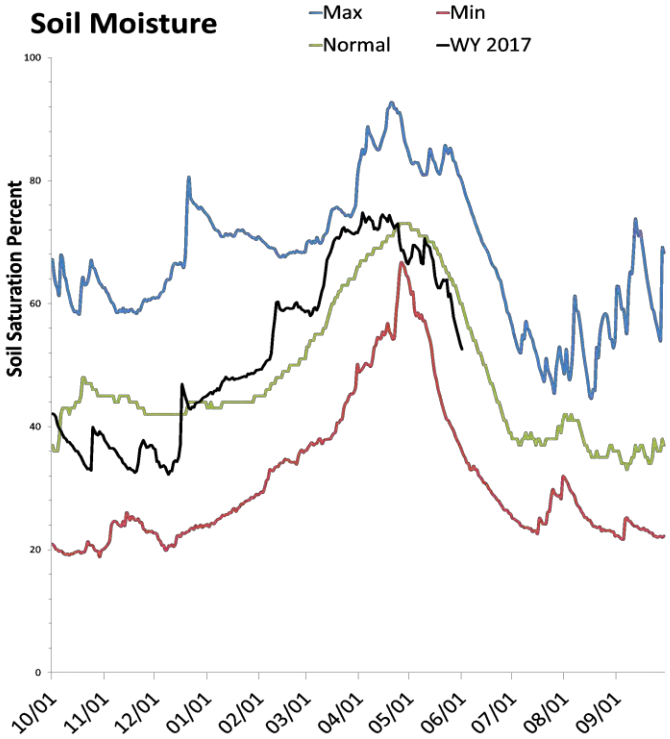


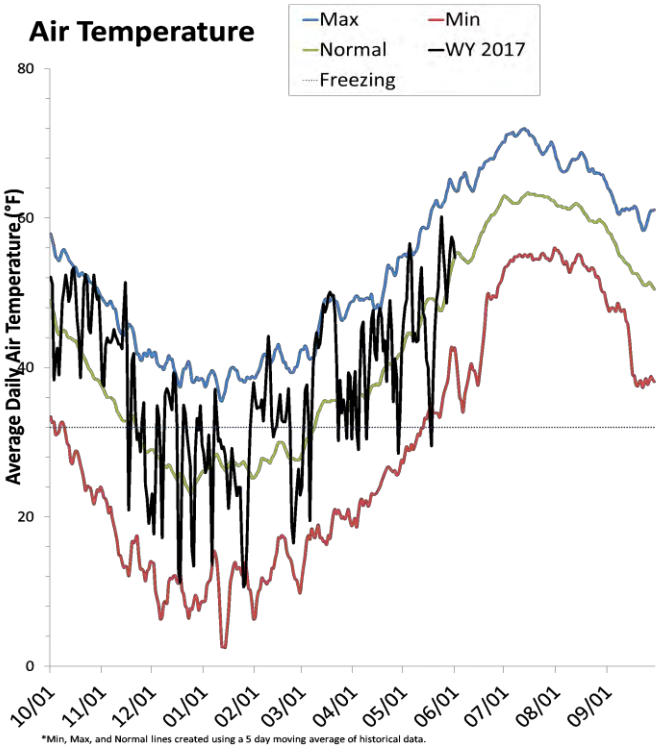
# Southwestern Utah

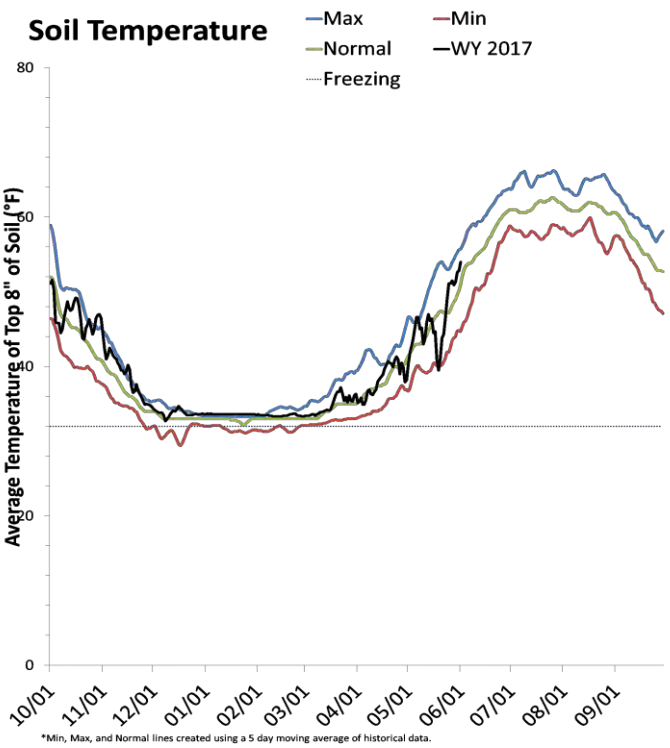
June 1, 2017

Precipitation in May was near average at 92%, which brings the seasonal accumulation (Oct-May) to 108% of average. Soil moisture is at 53% compared to 64% last year. Reservoir storage is at 56% of capacity, compared to 50% last year. The water availability index for the Virgin River is 67%.



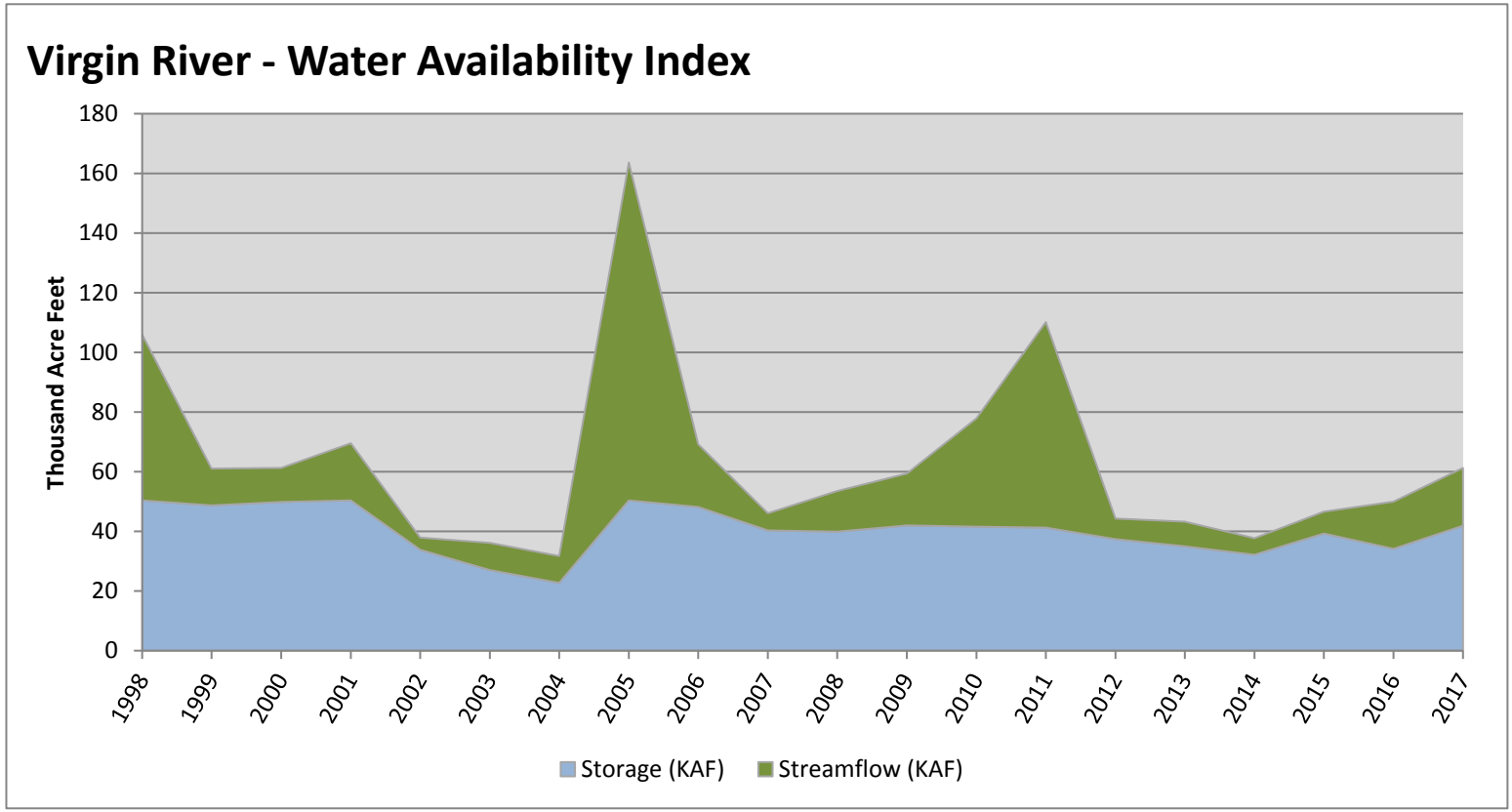

SNOTEL Data

June 1, 2017

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | KAF^ | KAF^ | KAF^ | % | | |
| **Virgin River** | **41.90** | **19.37** | **61.27** | **67** | **1.39** | **99, 00, 06, 01** |

*EOM, end of month; #WAI, Water Availability Index; ^KAF, thousand acre-feet.



*June 1, 2017*

# Water Availability Index

| Basin or Region | May EOM* Storage | May Flow | Storage + Flow | Percentile | WAI# | Years with similiar WAI |
|---|---|---|---|---|---|---|
| | *KAF^* | *KAF^* | *KAF^* | *%* | | |
| **Bear River** | **1081** | **61.0** | **1142** | **79** | **2.4** | **82, 12, 97, 99** |
| **Woodruff Narrows** | **56.0** | **61.0** | **117.0** | **95** | **3.7** | **84, 97, 09, 86** |
| **Little Bear** | **14.6** | **31.5** | **46.1** | **85** | **2.9** | **99, 05, 97, 98** |
| **Ogden** | **117.3** | **42.0** | **159.3** | **82** | **2.6** | **93, 98, 11, 83** |
| **Weber** | **205.6** | **94.9** | **300.4** | **86** | **3.0** | **97, 05, 06, 09** |
| **Provo River** | **436.8** | **60.3** | **497.1** | **87** | **3.1** | **98, 96, 06, 09** |
| **Western Uinta** | **180.0** | **30.5** | **210.4** | **48** | **-0.1** | **96, 99, 13, 12** |
| **Eastern Uinta** | **47.8** | **22.2** | **70.0** | **29** | **-1.8** | **12, 04, 03, 91** |
| **Blacks Fork** | **28.8** | **39.6** | **68.4** | **89** | **3.2** | **85, 09, 87, 14** |
| **Price** | **64.5** | **20.2** | **84.7** | **82** | **2.6** | **06, 99, 98, 85** |
| **Smiths Creek** | **14.1** | **13.4** | **27.5** | **97** | **3.9** | **87, 01, 14, 96** |
| **Joes Valley** | **50.1** | **32.6** | **82.7** | **76** | **2.2** | **86, 05, 01, 00** |
| **Moab** | **2.4** | **1.2** | **3.6** | **65** | **1.2** | **96, 01, 07, 95** |
| **Upper Sevier River** | **94.8** | **14.6** | **109.4** | **53** | **0.2** | **12, 94, 97, 01** |
| **San Pitch** | **9.0** | **7.0** | **16.0** | **37** | **-1.1** | **89, 08, 10, 94** |
| **Lower Sevier** | **65.6** | **11.8** | **77.4** | **5** | **-3.7** | **04, 16, 03, 91** |
| **Beaver** | **15.9** | **11.8** | **27.7** | **63** | **1.1** | **99, 87, 82, 81** |
| **Virgin River** | **41.9** | **19.4** | **61.3** | **67** | **1.4** | **99, 00, 06, 01** |

**EOM, end of month; # WAI, water availibilty index; ^KAF, thousand acre-feet.*

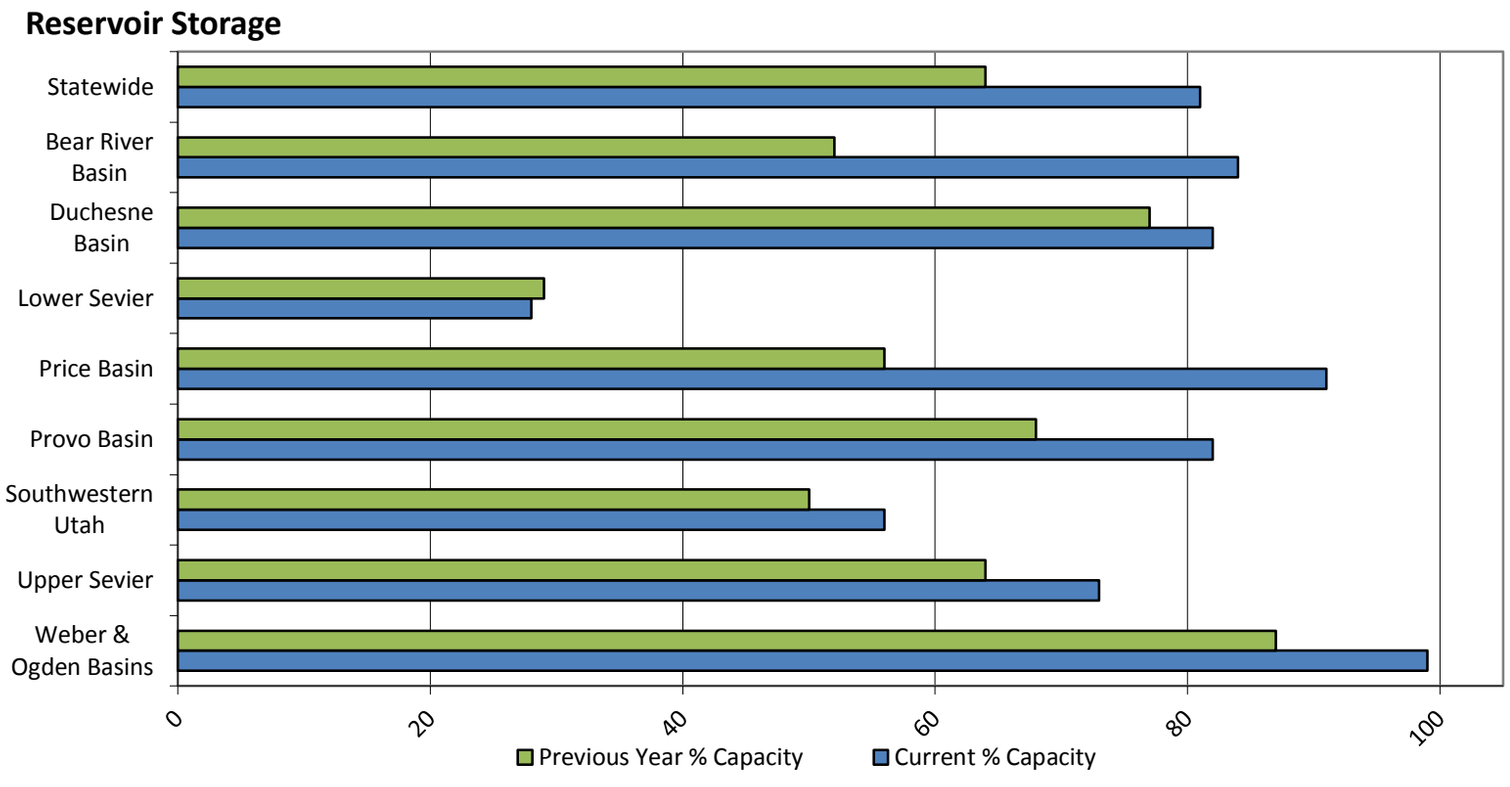
## What is a Water Availability Index?

The Water Availability Index (WAI) is an observed hydrologic indicator of current surface water availability within a watershed. The index is calculated by combining current reservoir storage with the previous months streamflow. WAI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry) with a value of zero (0) indicating median water supply as compared to historical analysis. WAI's are calculated in this fashion to be consistent with other hydroclimatic indicators such as the Palmer Drought Index and the Precipitation index.

Utah Snow Surveys has also chosen to display the WAI value as well as a PERCENT CHANCE OF NON-EXCEEDANCE. While this is a cumbersome name, it has the simplest application. It can be best thought of as a scale of 1 to 99 with 1 being the drought of record (driest possible conditions) and 99 being the flood of record (wettest possible conditions) and a value of 50 representing average conditions. This rating scale is a percentile rating as well, for example a WAI of 75% means that this years water supply is greater than 75% of all historical events and that only 25% of the time has it been exceeded. Conversely a WAI of 10% means that 90% of historical events have been greater than this one and that only 10% have had less total water supply. This scale is comparable between basins: a SWSI of 50% means the same relative ranking on watershed A as it does on watershed B, which may not be strictly true of the +4 to -4 scale.

For more information on the WAI go to: www.ut.nrcs.usda.gov/snow/ on the water supply page. The entire period of historical record for reservoir storage and streamflow is available.

| Reservoir Storage Summary for the end of May 2017 | Current (KAF) | Last Year (KAF) | Average (KAF) | Capacity (KAF) | Current % Capacity | Last Year % Capacity | Average % Capacity | Current % Average | Last Year % Average |
|---|---|---|---|---|---|---|---|---|---|
| Big Sand Wash Reservoir | 25.9 | 23.8 | | 25.7 | 101% | 93% | | | |
| Causey Reservoir | 7.2 | 7.2 | 7.0 | 7.1 | 102% | 101% | 99% | 103% | 102% |
| Cleveland Lake | 5.4 | 3.8 | | 5.4 | 100% | 71% | | | |
| Currant Creek Reservoir | 14.1 | 15.0 | 15.2 | 15.5 | 91% | 97% | 98% | 93% | 98% |
| Deer Creek Reservoir | 143.1 | 140.6 | 132.8 | 149.7 | 96% | 94% | 89% | 108% | 106% |
| East Canyon Reservoir | 50.1 | 37.8 | 46.7 | 49.5 | 101% | 76% | 94% | 107% | 81% |
| Echo Reservoir | 73.5 | 66.8 | 67.0 | 73.9 | 99% | 90% | 91% | 110% | 100% |
| Grantsville Reservoir | 3.3 | 2.6 | 2.8 | 3.3 | 100% | 79% | 85% | 118% | 93% |
| Gunlock | 10.3 | 3.6 | 7.9 | 10.4 | 99% | 35% | 76% | 130% | 46% |
| Gunnison Reservoir | 9.0 | 1.2 | 14.7 | 20.3 | 45% | 6% | 72% | 61% | 8% |
| Huntington North Reservoir | 3.5 | 3.2 | 3.7 | 4.2 | 83% | 76% | 88% | 95% | 86% |
| Hyrum Reservoir | 14.6 | 14.7 | 14.6 | 15.3 | 96% | 96% | 95% | 100% | 100% |
| Joes Valley Reservoir | 50.1 | 42.8 | 51.0 | 61.6 | 81% | 70% | 83% | 98% | 84% |
| Jordanelle Reservoir | 293.7 | 234.2 | 274.4 | 320.0 | 92% | 73% | 86% | 107% | 85% |
| Ken's Lake | 2.4 | 2.4 | 2.0 | 2.3 | 106% | 102% | 87% | 122% | 118% |
| Kolob Reservoir | 5.7 | 5.4 | | 5.6 | 102% | 97% | | | |
| Lost Creek Reservoir | 22.9 | 20.7 | 18.7 | 22.5 | 102% | 92% | 83% | 122% | 111% |
| Lower Enterprise | 2.0 | 0.8 | 1.2 | 2.6 | 77% | 31% | 45% | 169% | 68% |
| Miller Flat Reservoir | 5.4 | 3.4 | | 5.2 | 104% | 66% | | | |
| Millsite | 16.7 | 11.9 | 15.9 | 16.7 | 100% | 71% | 95% | 105% | 75% |
| Minersville Reservoir | 15.9 | 10.1 | 15.0 | 23.3 | 68% | 43% | 64% | 106% | 67% |
| Moon Lake Reservoir | 31.2 | 23.6 | 28.6 | 35.8 | 87% | 66% | 80% | 109% | 83% |
| Otter Creek Reservoir | 51.9 | 47.1 | 43.7 | 52.5 | 99% | 90% | 83% | 119% | 108% |
| Panguitch Lake | 12.7 | 13.9 | 18.1 | 22.3 | 57% | 62% | 81% | 70% | 77% |
| Pineview Reservoir | 110.1 | 110.7 | 97.8 | 110.1 | 100% | 101% | 89% | 113% | 113% |
| Piute Reservoir | 42.9 | 32.1 | 53.0 | 71.8 | 60% | 45% | 74% | 81% | 61% |
| Porcupine Reservoir | 11.5 | 11.4 | 10.8 | 11.3 | 102% | 101% | 96% | 106% | 106% |
| Quail Creek | 31.6 | 30.5 | 31.5 | 40.0 | 79% | 76% | 79% | 100% | 97% |
| Red Fleet Reservoir | 24.6 | 25.7 | 23.5 | 25.7 | 96% | 100% | 91% | 105% | 109% |
| Rockport Reservoir | 50.8 | 48.1 | 50.8 | 60.9 | 83% | 79% | 83% | 100% | 95% |
| Sand Hollow Reservoir | 49.0 | 47.1 | | 50.0 | 98% | 94% | | | |
| Scofield Reservoir | 64.5 | 25.5 | 48.7 | 65.8 | 98% | 39% | 74% | 132% | 52% |
| Settlement Canyon Reservoir | 1.1 | 0.7 | 0.9 | 1.0 | 110% | 74% | 85% | 129% | 87% |
| Sevier Bridge Reservoir | 65.6 | 69.2 | 159.0 | 236.0 | 28% | 29% | 67% | 41% | 44% |
| Smith And Morehouse Reservoir | 8.4 | 8.3 | 6.7 | 8.1 | 103% | 102% | 83% | 125% | 124% |
| Starvation Reservoir | 139.6 | 162.0 | 154.8 | 165.3 | 84% | 98% | 94% | 90% | 105% |
| Stateline Reservoir | 14.1 | 11.9 | 10.2 | 12.0 | 118% | 99% | 85% | 138% | 117% |
| Steinaker Reservoir | 23.2 | 25.9 | 29.2 | 33.4 | 69% | 78% | 87% | 79% | 89% |
| Strawberry Reservoir | 924.5 | 829.0 | 714.9 | 1105.9 | 84% | 75% | 65% | 129% | 116% |
| Upper Enterprise | 3.5 | 0.3 | 4.8 | 10.0 | 35% | 3% | 48% | 73% | 7% |
| Upper Stillwater Reservoir | 9.2 | 5.8 | 15.7 | 32.5 | 28% | 18% | 48% | 58% | 37% |
| Utah Lake | 636.1 | 467.6 | 864.9 | 870.9 | 73% | 54% | 99% | 74% | 54% |
| Vernon Creek Reservoir | 0.6 | 0.5 | 0.5 | 0.6 | 100% | 75% | 87% | 115% | 87% |
| Willard Bay | 217.2 | 178.5 | 164.5 | 215.0 | 101% | 83% | 77% | 132% | 109% |
| Woodruff Creek | 4.1 | 4.1 | 3.8 | 4.0 | 103% | 103% | 95% | 108% | 108% |
| Woodruff Narrows Reservoir | 56.0 | 58.2 | 44.8 | 57.3 | 98% | 102% | 78% | 125% | 130% |
| Meeks Cabin Reservoir | 28.8 | 25.2 | 25.2 | 32.5 | 89% | 77% | 78% | 114% | 100% |
| Bear Lake | 1080.9 | 632.9 | 710.6 | 1302.0 | 83% | 49% | 55% | 152% | 89% |
| Basin-wide Total | 4376.9 | 3464.2 | 4007.6 | 5380.9 | 81% | 64% | 74% | 109% | 86% |
| # of reservoirs | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 43 |



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# Utah Climate and Water Report

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